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CERTAIN ASPECTS OF THE EDUCATIONAL STRUCTURE ARE HEAVILY
REPRESENTED--UNIVERSITY LEVEL COURSES, EDUCATIONAL
PSYCHOLOGY, EXAMINATIONS AND STUDENT EVALUATION, HIGHER
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PATTERNS OF STUDENT UNREST, TEACHING METHODS AND TECHNIQUES
(INCLUDING INSTRUCTIONAL MATERIALS, AUDIOVISUAL AIDS, AND
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SOCIOLOGY, RESEARCH METHODOLOGY, ACADEMIC STANDARDS, HEALTH
CARE, PUBLIC SCHOOLS, ADULT EDUCATION, VOCATIONAL EDUCATION,
AND USE OF REGIONAL LANGUAGES AS A MEDIUM OF INSTRUCTION.
THERE IS A LIST OF THE PERIODICALS ABSTRACTED. (LY)

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Vol 1 No 3

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OFFICE OF EDUCATION**

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ADMINISTRATION AND ORGANIZATION

- 658 MAHAJAN J M: Manning schools - a new view point. Punjab Journal of Education 1967, 3(4), 38-40.

The existing practice of appointing only elderly persons experienced in teaching, as principals of schools has been deprecated. For the educational administrators, knowledge of particular subjects is necessary, but acquaintance with educational problems and a new vision about education in a democracy, are more essential. The elderly teachers hardly fit in the new set up. As in the government administrative services, 50% of the posts of principals should be filled by promotion on the basis of seniority and the rest should be direct recruits. The latter should have Masters degree and should undergo two years' training in pedagogical sciences and educational administration. The promoted personnel should also undergo 9 months' training in educational administration.

- 659 WEST BENGAL HEADMASTERS' ASSOCIATION: Headmasters' manual - containing important rules, regulations and circulars by Government, Board of Secondary Education and others. Calcutta, the Association, 1966. 368p.

Contains rules, regulations and circulars useful to schools under the West Bengal Board of Secondary Education pertaining to the following topics: 1) W.B. Board of Secondary Education Act; 2) revised school code; 3) school managing committee; 4) recognition of schools; 5) appointments and dismissals; 6) teachers' qualifications, emoluments and grant-in-aid; 7) extension of service; 8) leave rules; 9) provident fund; 10) admission & fees; 11) discipline; 12) school guidance service; 13) co-education; 14) accounts.

ADULT EDUCATION

- 660 JAGDISH SINGH: Role of mass media of communication in the eradication of illiteracy. Indian Journal of Adult Education 1967, 28(1), 8-9.

The role of newspaper, radio and TV as media of mass communication has been discussed. Since the language of the newspapers is not intelligible to the neo-literates special supplements in a simple language and in bold types should be published for them. This would help sustaining the newly acquired literacy of adults. Radio may be very effective if educational broadcasts are properly integrated with adult literacy programmes. The professional

efficiency of agriculturists may be improved through well-planned broadcasts. Similarly, social education workers can be also benefitted by specially designed programmes. The possibilities of the use of TV for eradication of illiteracy, however, have to be explored.

- 661 SHAW J H: Liberal education and the villagers of Mysore. Indian Journal of Adult Education 1967, 28(2), 8-10, 15.

Presents an account of Vidyapeeths (seats of learning), a series of 8 residential colleges which provide liberal and vocational education by combining the two philosophies of Gurukula system and Danish Folk High School Movement. Social, civic and cultural education and leadership training form an important part of the Vidyapeeth studies. In addition to the two five-month residential courses conducted each year, a number of short courses on specific rural subjects are also conducted. The curriculum of the five-month course has been given.

- 662 STYLER W E: Adult education in India. Bombay, Oxford University Press, 1966. viii, 114p.

Describes author's impression about adult education in India from his visits to India. Chapter I discusses the situation in which social education (as adult education is called in India) has developed. Through adult education India envisages the formation of a new 'educative society'. In chapter II the conditions obtaining in Delhi and Bombay cities and in two States viz, Bihar and Mysore, have been outlined. Chapter III describes the problems of social education. Social education has been most successful when it is under voluntary movement, enjoying the support of State departments of Education. Under the community development department its objectives become diffused. Formation of State adult education associations has, therefore, been suggested. In chapter IV the facilities available for workers' education in India have been described. Chapter V deals with universities in relation to adult education. The last chapter describes the activities of the Indian Adult Education Association.

BASIC EDUCATION

- 663 NAI TALIM SAMITI: Nai Talim Convention. ICBE Bulletin 1967, 3(1), 23-6.

The Convention held in the Teacher Training College, Kundeshwar, Tikamgarh district (MP) on 22-23 November 1966 examined the recommendations of the Education Commission (1964-66). The break-up of primary stage into lower and higher, has not been approved. Instead, the school system should be a continuous, unbreakable unit of 7 or 8 years to be followed by 2 or 3 years'

secondary course. Commission's neglect of the concept of post-basic education and the work of post-basic education schools has been regretted. Although the Commission has considered work-experience, which is the most important principle of basic education, as an integral part of education at all stages, the objectives and programmes have not been made clear. The Commission had failed to appreciate the role of agricultural education vis-a-vis the school children, because of lack of first-hand acquaintance with practices and conditions obtaining in the Basic Schools utilizing agriculture as a productive craft. The convention regretted the discarding of the nomenclature 'basic education' by the Commission and accepting its principles in their own way. All education at least up to the end of the 10th standard should be called basic education.

COURSES OF STUDY (HIGHER EDUCATION)

Social Sciences and Humanities

- 664 VIR D: Cooperative member education: its content. Indian Journal of Adult Education 1967, 28(2), 11-14.

The members of a cooperative can be classified under: 1) prospective members, 2) ordinary members, 3) active or elite members, and 4) members of managing committees and office bearers. The content of the programme would be determined by the nature of categories, objectives to be achieved and resources available. Besides the prescribed syllabus adapted to local conditions, topics of common interest and local problems should be discussed. A programme should also be drawn up for elected members. ~~working~~. Emphasis should be on business aspects and development of leadership which involves knowledge of parliamentary procedures and skills of communication with various groups. Some research in this field should also be carried out.

- 665 HISTORY TEACHING SEMINAR, CHANDIGARH: Recommendations. (In Webster J C B, Ed. History for college students. Chandigarh, Panjab University, 1966. 27-44).

The student-teacher ratio should be 40:1 and the work-load of teachers should be 18 and 15 periods per week for pass and honours courses respectively. The outline of the history syllabi recommended for the three-year degree classes (pass and honours) is as follows: 1) Pre-university: survey of Indian history from the earliest time to 1947; 2) Degree course; (a) 1st year - ancient and medieval world, (b) 2nd year - modern world and modern India or European history (1789-1939) or British history (1485-1914), (c) 3rd year - ancient Indian history upto 1000 AD, or Indian history (mid-twelfth to mid-eighteenth century), or Indian history (1740-1950); 3) Honours course: (a) 2nd year i) 2(b) above, ii)

one topic from 2(c) above, and iii) one of the following: Europe (1784-194), Britain (1603-1914), USA 1600-1945, U.S.S.R. (1689-1941), Japan & China (1840-1949), Africa, (b) 3rd year - 2(c) above, one topic from 3(a)(iii) above, and special studies of the Guptas, the freedom movement or the French revolution. Suggested reading list and sample questions have been given.

- 666 HULBE S K: Community development, the Indian universities and the planning forums. New Concepts 1967, 1(2), 51-6. 2 ref.

Government's attempts to bridge the widening gulf between educational institutions and society through programmes like planning forums, social camps and literacy drives did not produce appreciable results. The propriety of educational institutions engaging in constructional activities is still questioned. This reflects the failure of the university faculties to utilize processes of socio-economic development for furthering social science research. The progress of community development projects on the other hand is handicapped for lack of qualified personnel. The educational institutions should, therefore, include community development in the curriculum. Involvement of universities in the planning forum activities would provide an opportunity to study the community in action, enrich the academic life and make education substantive and relevant to demands of the developing society.

- 667 WEBSTER J C B: History for college students (Proceedings of the Seminar on History Teaching - Chandigarh). (In Webster J C B, Ed. History for college students, Chandigarh, Panjab University, 1966. 13-26. 14 ref.)

History teaching assumes a continuing process of interaction between the historian and his facts and an unending dialogue between the present and the past. While teaching, the subject should be presented as a series of problems rather than as a series of answers. Generalizations can be useful in history, both as aids to comprehension and as tools of criticism. Explanation is basic to historical study. Causation is one sub-aspect of the wider problem of historical explanation. Four suggestions about teaching 'causes' have been made: 1) causes are multiple; 2) they are interconnected; 3) not all causes are equally important; and 4) people cause events. The teachers should instil in students only those values which are inherent in the discipline of historical studies and not those which are the products of the biases of either of the teachers or the historians. The teaching methods should be determined by the nature of discipline and not by the expectations of the students or the exigencies of the examination system.

Science and Technology

668

CHANDRASEKHAR S: Thoughts on physics education. Science Resource Letter 1967, 1(1), 2-4.

Physics as a separate subject should form an integrated course covering middle and high schools. Since the high school stage is a terminal point for most students, the syllabus should be self-contained. At the college level the emphasis should be on depth, without making the course too specialized. A good mathematical training is necessary at this stage. On completion of this course the students may either become school teachers or can choose technical courses requiring knowledge of physics. The Honours and Masters courses, should be designed for prospective college teachers and researchers. The syllabus should emphasize the fundamental unity of the various branches. Students taking research work should select advanced courses on special topics, e.g. mathematical methods, advanced quantum mechanics, nuclear and particle physics, and solid state physics. There is need for standard textbooks by Indian scientists and teachers.

669

JAIN R K: Higher education for business in India. Nagpur, Vishwa Bharati prakashan, 1966. viii, 117p. 32 ref.

Topics discussed in 14 chapters include: 1) growth of commerce education in India; 2) the objectives and goals of commerce education; 3) the need for evolving a theory of commerce; 4) research in commerce. It has been stressed that the creation of conditions and an environment conducive to the growth of research in business is the collective responsibility of both academicians and practitioners; 5) courses of study. The shortcomings of the existing syllabi have been pointed out and guidelines for planning the course from the earliest to the postgraduate level have been suggested; 6) role of teachers; 7) role of educational institutions; 8) selection of teachers. The appendix gives the model syllabus for B.Com. degree course formulated by the All India Council for Technical Education.

670

KAPUR J N: Mathematics in engineering curriculum. (In his Essays in mathematics education, Delhi, Ram Chand & Co., 1966. 95-8).

Objectives of teaching mathematics to engineers are two-fold: 1) teaching the formulae and techniques required in the study of other branches of science, engineering science and technology; 2) teaching mathematical habit of thinking. Following suggestions have been made for improving the contents of mathematics in undergraduate courses in engineering colleges: 1) reduction of the number of examples on mechanical differentiation and integration of complicated function; 2) in calculus, emphasis on numerical integration; 3) in coordinate geometry, imparting knowledge of simple properties; 4) in differential equations, emphasis on numerical integration; 5) in algebra, emphasis on linear algebra, matrix theory, elements of algebra of set and Boolean algebra; 6) inclusion of vector algebra,

vector calculus, probability theory and statistical inference. About one-eighth of the total time in the 5 years' course should be devoted to the teaching of mathematics.

- 671 KAPUR J N: Training in operations research. (In his Essays on mathematics education, Delhi, Ram Chand & Co. 1966. 136-9).

The need for training both in theory and practice has been stressed. The universities should be the training grounds for theory, while the industry should provide training fields for practice. In training, techniques should be learnt first, their theory and limitations understood well and then problems should be attempted. While agreeing that research should be problem-oriented, it has been stressed that it should be preceded by a sound understanding of techniques and the foundations of the algorithms. Operations research problems would provide opportunities for developing new mathematical techniques.

- 672 LYNTON R P, PAREEK U: Training in human relations - a multipurpose design. Indian Educational Review 1967, 2(1), 80-90. 11 ref.

Describes a design for training personnel under controlled conditions (i.e. in a laboratory) in the skills of working together and living creatively. The training formed a part of the regular in-service courses of three months' duration organized by the Small Industry Extension Training Institute, Hyderabad for industrial consultants, extension officers and managers of small industrial units. Participants rated themselves before and after the laboratory on a five-point scale, for each dimensions of behaviour pertaining to listening, taking initiative, expressing feelings, and interacting with a superior. Each participant rated his present behaviour and also what he wished his behaviour to be. The results show that the laboratories increased the insight of participants into their own behaviour. They recognized some wide discrepancies between the frequencies with which they behaved in certain ways and the frequencies with which they wished to behave in these ways. It is possible to start laboratory training in India. The minimum requirements are two experienced trainers and 15 closely scheduled hours in groups of less than 25.

- 673 SHAH A B: Science education in India. (In SHAH A B, Ed. Teaching of natural sciences. Bombay, Manaktalas, 1966. 37-43).

The three-fold objective of the teaching of science at the university level is: 1) to give the student an insight into the historical growth of science as an expression of the creative spirit of man. The interaction between science with the social structure, technology and thought of each period should also be brought out; 2) to give him an idea

about the application of scientific methods to problems of man-in-society; 3) to provide an understanding of the basic findings and the major techniques of the discipline of his choice. Accordingly, two types of courses in science have been suggested: 1) a compulsory general integrated course, and 2) a strictly subject course. The courses in minor subjects at the graduate level should be redesigned keeping their instrumental role in view.

Medicine

- 674 ISHWAR CHANDRA: Integrated teaching in undergraduate medical education. Indian Journal of Medical Education 1967, 6(1), 4-7.

The advantages of integrated teaching for meeting the physical, socio-cultural and psycho-emotional needs of the community, have been discussed. Integrated teaching requires integration of subjects through a progressive and logical sequence of instruction which will enable students to correlate their knowledge about all the subjects they are studying at any one time. Integration should also be achieved between pre-clinical, para-clinical and clinical sciences. The chronological sequence of subjects to be taught under integrated teaching should be planned at the outset. Integration of staff should also be achieved to facilitate co-ordinated teaching. Some of the well-recognized methods of integrated teaching discussed are: 1) co-ordinated lectures; 2) clinico-social conference; 3) bed-side teaching; and 4) comprehensive health care programme.

- 675 PRASAD B G: Integrated teaching of psychiatry and mental subjects at the preclinical stage. Indian Journal of Medical Education 1967, 6(1), 27-31. 9 ref.

Medical psychology and sociology should be considered as basic sciences for the teaching of psychiatry. This would help the medical students to understand mental patients as human beings and not as biological entities, whose behaviour is conditioned by an interplay of inborn reactions and physical, psychological and social influences. The departments of physiology, social and preventive medicine, and psychiatry should collaborate in the integrated teaching of psychiatry in the pre-clinical stage. The topics to be covered in teaching (total 60 hours) the subject have been listed.

- 676 SATYANAND D: Place of psychiatry in undergraduate and postgraduate studies in India. Indian Journal of Medical Education 1967, 6(1), 32-44.

At the undergraduate level, the course should be divided

in three phases: pre-clinical, para-clinical and clinical. The course followed at the All-India Institute of Medical Sciences, New Delhi (given in Appendix I) has been generally recommended with some modifications. For postgraduate studies leading to M.D. in psychological medicine, the syllabus prepared by the author and adopted by the Institute (given in Appendix II) has been suggested. Only the institutions having well-equipped clinics like child guidance clinic, group psychotherapy clinics, should be permitted to teach the subject at the M.D. level. Qualifications for admission are: 1) two-year course - medical graduates who after registration have completed one year of house physicianship in a large psychiatric ward; 2) three-year course - medical graduates after completion of one year internship. One-year postgraduate diploma course in psychological medicine has been discouraged. Psychiatry should also be taught to M.D. students in medicine, paediatrics, preventive and social medicine, and other sub-specialities of medicine, if they have not already taken an undergraduate course.

- 677 SATYANAND D: Role of psychiatry in the curriculum of Institutes of Public Health and Hygiene. Nagarjun 1967, 10(5), 230-12.

The reasons for the resistance faced by the public health workers in getting the principles of public health and hygiene accepted and worked out by the people, should be properly understood for the success of the health programmes. It is, therefore, necessary that social anthropology, group-dynamics and group therapy as taught by analytically-oriented psychiatrists, should form an indispensable part of the curriculum.

- 678 RAMLU M A: Some aspects of engineering education in India. New Sketch 1967, Republic Day Special No. 26 January, 18-21.

Suggestions for the improvement of diploma courses offered by the polytechnics are: 1) appointment of teachers possessing degree or diploma and industrial experience; 2) adequate stipends for students from poor and middle classes; 3) proper selection of students. The requirements for elevating the standard are: 1) greater contact with the industry; 2) well-equipped engineering laboratories; 3) adequate tutorial classes; and 4) practical training. Suggestions have been made to introduce some new specialities at the diploma and post-diploma level. At the degree level the existing disparity between the Indian Institutes of Technology and other engineering colleges should be narrowed down.

CURRICULUM

- 679 ASRANI U S: Social service in schools and colleges and its evaluation. Indian Education 1966-67, 6(4-2), 12-16.

Social service should be included in educational programmes at all levels so that the leisure hours of the pupils can be utilized for social welfare activities. Appointment of separate educational inspectors for rendering guidance to institutions, has therefore been suggested. Each educational institution should be assigned a specific geographical area for conducting field work. The evaluation of the work done by institutions should be made by inspectors at the end of each academic year. Marks should be assigned on the basis of evaluation to each institution. Certificates of merit should be awarded to participant teachers and students on this basis. This achievement should be considered for future employment and promotion. Financial grants to institutions should also be partly guided by the achievement of the individual institutions.

- 680 BHATT G P: Curricular adjustments for gifted children. Progress of Education 1967, 41(6), 208-13.

Stresses the need for evolving an appropriate programme for identifying the gifted children in India and making organizational provision for their development. Three methods of identification have been suggested: 1) informal method of identification by teachers through observations; 2) maintaining cumulative record cards designed to provide a continuous record of significant information regarding student's progress and growth; 3) preparation sociograms which provide deep insight into problems of social maturity. Organizational provision for curricular adjustments includes: 1) special schools and special classes; 2) academic enrichment programme; 3) grouping within a class; 4) individualized instruction; 5) provision of supplementary educational material; 6) acceleration programme for children sufficiently advanced in terms of physical, socio-emotional and academic growth.

- 681 CHAMPAKAM S, BALASUBRAMANIAN S C: Nutrition in the syllabi and text-books of elementary schools. Journal of Nutrition and Dietetics, 1967, 4(1), 36-40. 6 ref.

The syllabi in nutrition in elementary schools of 11 Indian States were examined for their content and adequacy of coverage of the subject-matter. The syllabi for the first six grades and the lessons on nutrition in the text-books for classes IV to VI in elementary schools in Andhra Pradesh were examined in detail. There appeared to be a need for rearrangement of the topics in the syllabi and certain important concepts were found to be omitted. The text-books which were in use in the English medium schools in Hyderabad, Andhra Pradesh, were defective and contained many inaccurate statements. Liberal use has been made of terms and words which were much above the level of comprehension of children in the elementary grades. Examples have been quoted.

- 682 DESAI D M: Social studies and the Kothari Education Commission (Editorial). Social Studies Teacher 1967, 3(4), 1-2.

Following the recommendations of the Secondary Education Commission (1952-53), the integrated study of social services was introduced in schools, and the NCERT prepared ~~up~~ a fused syllabus. This was expected to reveal the inter-relationship of the subjects of social studies and to inculcate social skills and better social attitudes and interest in students. The Education Commission (1964-66) on the other hand favours integrated study up to the lower primary level and stressed the desirability of gradual splitting of the subject into component units. At the higher secondary stage, history, geography and civics should be taught as separate subjects. The recommendations, if accepted, would retard the progress so far made under the guidance of NCERT.

- 683 JOSHI A C: Scientific and technical education at the elementary and secondary levels. (In Shah A B, Ed. Teaching of natural sciences. Bombay, Manaktalas, 1966. 9-25).

At the elementary stage children should be trained in the scientific method of problem-solving, which implies systematic observation and carrying out simple experiments. At the secondary stage there should be two programmes: 1) general science for all students, 2) elective science covering all branches to understand the impact of science on society and aimed at the preparation of scientific and technical personnel. Workshop should be the link between scientific and technical education in the school. Familiarity with simple tools and processes and a good grounding in mathematics should be ensured. Rapid expansion of science education in universities would help meeting the shortage of teachers. The importance of well-equipped laboratories, adequate instructional material and science clubs has been stressed. Setting up an organisation exclusively for the framing and revising of science curricula has been recommended.

- 684 KELKAR S V: Education Commission and science education. Vigyan Shikshak 1967, 11(1), 40-8

The validity of the following recommendations of the Education Commission (1964-66) has been questioned: 1) teaching mathematics and science to all students up to class X; 2) teaching physics, chemistry, biology etc. as separate subjects from class V onwards; 3) agriculture orientation in rural schools, and technology orientation in urban schools; 4) teaching the entire arithmetic and basic algebra at the primary stage; 5) science teaching being built round home-technology; 6) provision that a student of first degree

course could opt for a subject which he has not studied earlier; 7) regional language as medium of instruction up to postgraduate level; 8) devoting 20% of the time in teacher training programme to the study of the subjects to be taught; 9) prescribing Masters degree as the minimum qualification for teachers of higher secondary schools and teacher-educators in primary and secondary training colleges; and 10) sanctioning higher grants to efficient schools and colleges depriving the more needy institutions.

ECONOMICS OF EDUCATION

685

DATTA A: Education, science and economic development. Quest 1966, No. 51, 21-7.

The tendency to perpetuate the rules of a traditional society in educational institutions prevents the system of education and research from meeting the demands of a developing economy. Higher secondary education should be preparatory to university education and the tendency to closely relate it to the vocational requirements of students and to diversify it accordingly, should be discouraged. Diversification to technical and vocational courses should be at the age of 14. Higher secondary course should be consolidated, with relatively few elective subjects. Teaching has to be problem-oriented. This necessitates a change in the examination system. To prevent brain drain, no student should be sent abroad without completing the highest course available. The prerequisite, however, is the elevation of standards of at least some selected universities. A change in the organizational pattern of educational and research institutions has been suggested. Other suggestions are: 1) utilization of research result for economic development; 2) communication of scientific knowledge to the common people; and 3) enunciation of a science policy rooted in an appropriate philosophy.

686

KOTHARI V N: Economic issues in education policy. Education & Psychology Review 1967, 7(1), 6-9.

The cost of education may either be direct or indirect. The former represents the cost of resources while the latter includes the earnings forgone by the educands, cost of impetus given for furthering free primary education, scholarships and loan scholarships. Benefits of education may be cultural (non-monetary) as well as economic (monetary). These may accrue either to individuals or to society. As regards purely economic aspect, the educational system should be linked with the manpower planning. The manpower planning however works well for technical and vocational education rather than for general science and liberal education. In democratic country the increase in the number of educated persons is likely to exceed the demand, in spite of vocational-

ization of education. Economists are not entitled to advocate planning education only in terms of employment potential. The implications in terms of costs and benefits of various courses of action should be made clear and the final decision left to others. If the choice is made with a clear understanding of the economic implications, the policy followed is likely to be more efficient.

- 687 PARIKH G D: Education and economic development. General Education Quarterly 1967, 3(3), 19-29.

The relation between education and economic development may be considered from two points of view: 1) meeting the manpower needs of the community, and 2) responding to education at all levels. In primary education, the important factor is the number of students successfully completing the course. At the secondary stage the need is for diversification of courses and their orientation towards sub-professional occupations. Some common educational experience should be provided to all the undergraduates. The courses offered by universities should be of a general nature and not adjusted to the requirement of specific jobs or functions. Complementary instruction to the working craftsmen should be provided with a view to reducing pressure on institutions of formal education. Establishment of junior colleges providing general and vocational education leading to a degree has been suggested for those who cannot attend university colleges. Active participation of universities in the life of the community through extra-mural activities, extension work, problem-solving activities would help development effort.

- 688 RAO V K R V: Role of education in economic development. Hitavada Republic Day Number 26 January 1967, p.IV, cols. 1-4. Mess in education - some remedies. Tribune 30 January 1967, p.IV, cols. 3-5. 2100 words.

A reorientation in the educational system is necessary for the prevention of wastage in every stage of education and promotion of economic growth. The educational structure should consist of 1) a terminal point at the end of 10th class; 2) independent streams of technical, agricultural, commercial and other vocational training; and 3) another independent stream for those who want to qualify for entrance into the university. Restrictive university education should not, however, mean preventing people from improving their qualifications at a later stage. Correspondence courses, part time courses, evening courses, morning colleges etc., would provide opportunities for such people.

EDUCATION : GENERAL

689

AHMED F A: Eighteen years of educational freedom. AICC Economic Review 1967, 18(13-14), 53-5.

Educational achievements of India since independence are: 1) enrolment in primary schools is about 51 million, a three-fold increase over the 1947 figure, 2) institution of diversified courses in about 3873 multipurpose schools to accommodate different kinds of ability; 3) establishment of central schools for the children of defence personnel and Union Government employees, 4) increase in literacy percentage, 5) establishment of a Department of Science Education in the NCERT, which revises science curricula, trains key personnel, maintains standards for science apparatus, organizes a National Talent Search for gifted children; 6) increase in the national investment in technical education from Rs.202 million in 1956 to Rs.1420 million in Third Plan; 7) setting up of special women's polytechnics; and 8) a chain of five technical institutions, the Indian Institutes of Technology.

690

JAYASWAL S R: Tagore on problems of education. Education 1967, 46(2), 5-8.

Tagore's views on education have been examined in the context of some of the present day educational problems. He advocated the adoption of the mother-tongue as the medium of instruction. Education imparted through a foreign medium does not help the children to cultivate the power of thought and imagination. It creates a cultural crisis in the life of the individuals as well as in the society. Tagore desired to combine Indian education and culture in order to promote the harmonious development of human personality. Education should encourage creativity, grant freedom of self-expression and should be related to the life of pupils. Referring to adult education, Tagore stressed the importance of indigenous cottage industries, co-operative banking, village self-government, expansion of adult and primary education, improvement of rural hygiene and establishment of library and laboratory for agricultural research. The aim of education is that student should in the fullest sense be true to their humanity.

691

MATHUR V S: Trends in educational thought in India. Tribune 4 February 1967, p.4, cols. 3-5. 1152 words.

Recent trends are: 1) considering education as a means for developing the total personality - physical, mental, social and spiritual; 2) recognition of individual differences in children - physical, intellectual and psychological - warranting individualized instruction; 3) emphasis on self-education and work experience; 4) democratisation of school administration; 5) introduction of some form of student

government to encourage self-initiative and to instill discipline and responsibility; 6) integration of school activities with the community life; and 7) parent-teacher cooperation. A plea has been made for the revival and reconstitution of Indian idealism and evolving a national system of education.

- 692 SEN N B, Ed. Glorious thoughts on education. New Delhi, New book society of India, 1967. 360p.

Contains quotations from the works of eminent scholars, poets, philosophers and social reformers of both East and West. The topics chosen relate to education, character, the mind, manners, languages, ideas and ideals, teacher and student, schools, colleges and universities.

EDUCATION COMMISSION

- 693 RAWALGAONKAR V S: Dr. Kothari Commission and its recommendations. Maharashtra Educational Journal 1966, 15(2), 37-8.

Unless expenditure on education is considered as productive investment, no revolutionary changes can take place. To achieve the expectations of the Commission, education must be placed on the Concurrent List. The omission of any reference to the fundamental principles of philosophy of education is striking. The Commission is not also clear about the media of instruction. The suggestions regarding the study of foreign languages in addition to three other languages are unpracticable. The opening of new universities for post-graduate research and studies is unrealistic. Instead, the existing universities could be improved. Considering the present economic conditions the possibility of raising the per-capita expenditure on education seems to be remote.

EDUCATIONAL PSYCHOLOGY

- 694 BHATNAGAR R P: Research on personality correlates of academic achievement - a review. Educational Forum 1966, 11(4), 36-9. 10 ref.

The major portion of research on personality correlates of academic achievement has involved the use of psychological tests and statistical analysis. Though the Rorschach has been more frequently used for predicting achievement, other projective tests like Picture Frustration Test, Sentence Completion, Doll Play, T.A.T., etc. have also been used. The projective techniques other than the Rorschach are more effective measures which discriminate between the poor and adequate achievers. Probably, the Doll Play and T.A.T. techniques measure some aspects of personality, which may be related to

achievement behaviour in academic situations.

- 695 DESHMUKH S N, SHANBHAG V V, BAXI A J: Medical student and medical education. Indian Journal of Medical Education 1967, 6(1), 13-16.

A study with a sample of 128 Final M.B.B.S. students revealed that of the 16 active hours, they spend 1) $5\frac{1}{2}$ hours in attending lectures, tutorials and wards; 2) $8\frac{1}{2}$ hours in activities like gossiping, taking meals, extra-curricular activities etc., 3) 2 hours for studying. However, during the examination term they study for 8 hours on an average. The tendency to study during examination term is due to the importance attached to the university examination rather than daily work. Other revelations are: 1) use of library was mainly restricted during the examination term; 2) poverty does not seem to affect the studies of average students; 3) factors affecting the studies were more of a personal nature.

- 696 DUTT N K: Anxiety and ascendance-submission in teachers. Punjab Journal of Education 1967, 3(4), 86-9. 10 ref.

A study was conducted with 246 teachers randomly selected from various institutions in Panjab with a view to find out 1) the direct relationship between anxiety and ascendance-submission (AS); and 2) the pattern of distribution of AS in the population studied. Though ascendance and submission are separate traits, for convenience they can be cast into a single continuum on the psychograph. This is also justified because they are complementary from the point of view of adaptive significance. The study revealed that professional hierarchy in teaching does not have any relationship with AS, but it is interesting to note that teachers, as a group, are ascendent. Anxiety and ascendance are substantially and negatively correlated. It can be concluded that the tension created by anxiety is resolved comparatively more successfully by ascendent people than by submissive ones. The attitude of self-surrender is perhaps the cognitive aspect of submissive behaviour.

- 697 GEORGE E I, GOPALA PILLAY P, DHARMANGADAN B: Effect of physical disability on personality adjustment and achievement of secondary school pupils. Journal of Education & Psychology 1967, 24(4), 180-7. 9 ref.

This study was conducted to compare two groups of secondary school pupils viz; 1) physically defective pupils and 2) normal pupils - equated on age, total number of schooling years, economic status and intelligence - along the following variables: 1) health adjustment 2) home adjustment 3) social adjustment 4) emotional adjustment 5) school adjustment 6) intro-

version-extraversion;7) neuroticism;8) scholastic achievement; and 9) proportion of leadership positions held in schools. The results indicated that physically defective pupils were inferior in health, home and school adjustment, while they did not differ significantly in social and emotional adjustment. No significant difference is noticed in the S.S.L.C. examination marks. The chi-square value also shows no significant difference when the frequencies of pupils, from the two groups, who were in the S.S.L.C. but did not appear for the examination, who failed in the examination, who passed the examination without class and who passed with first class, were considered. Thus it is evident that when age and intelligence are controlled the defectives achieve as much as the normals. It is suggestive that in spite of their slightly greater difficulty in school adjustment, they manage to achieve as much as the normals. The defectives were found to have equal status, in scholastic achievement. They were also found to outnumber the normals when the proportion of leaders from the two groups was compared.

- 698 JITENDRA MOHAN: Reminiscence - a review. *Journal of Education & Psychology* 1967, 24(4), 204-14. 103 ref.

A review has been made of the literature to study the growth of the theory and experimental work in the field. The importance of the concepts reactive inhibition (Ir) and conditioned inhibition (sIr) and consolidation has been evaluated. A multifactor theory of reminiscence with due consideration for control and evaluation of various variables i.e. personality, drive, task, practice and physiological states has been put forward. A higher sophistication in method, analysis in theory is called for.

- 699 LAKSHMI S: Study of the relationship between the rate of learning and achievement motive among high school boys. *Journal of Psychological Researches* 1967, 11(1), 28-3. 3 ref.

The experiment was conducted in two stages. The first stage consisted of selecting the fast and slow learners based on the rate of learning as measured in learning a maze. The second stage explored the relationship between the rate of learning and achievement motive. The results show a significant (.01 level) difference between the mean n-achievement scores of fast and slow learners. This indicates that on the average, the fast learners have a high n-achievement than the slow learners. Most of the fast learners secured positive scores for Achievement Motive. Very few slow learners secured positive scores for Achievement Motive. A comparison of the S.D. for fast and slow learners indicates a greater variability among the fast learners in n-achievement scores. There is no relationship between the number of trials taken to master the maze and

Achievement Motive in the case of both fast and slow learners under neutral condition.

- 700 LONG L, MEHTA P H, Eds. First mental measurement hand-book for India. New Delhi, National Council of Educational Research & Training, 1966. xi, 505.

Part I gives abstracts of 326 tests developed by 273 individuals. The tests are classified under 8 major heads: 1) intelligence; 2) achievement in languages; 3) achievement in social sciences; 4) achievement in mathematics and science; 5) aptitude; 6) interest and value; 7) personality; and 8) miscellaneous. Each test has been assigned a four-digit number - the digits representing a classification or sub-classification. Information regarding each test has been given under 17 categories, for comparison. Part II contains reviews of 42 tests, prepared at the Workshop on Long Range Planning the Testing Field held in August 1962. There are two indexes - index to tests and author index.

- 701 MUKERJEE B N, SINHA B N: Some relationships between anxiety level and need for achievement. Journal of the Indian Academy of Applied Psychology 1967, 4(1), 11-20. 49 ref.

Demonstrates the relationship between manifest anxiety and achievement motivation as measured by Mukherjee's Sentence Completion Test (SCT), even after the effect of social desirability is partialled out. Two explanations for the correlation have been offered. The low intercorrelations among four measures of anxiety, viz, Taylor MAS, Freeman Anxiety Test, Martin Checklist and Test Anxiety Questionnaire (TAQ), are explained in terms of the multidimensional nature of anxiety. The relationship between the disposition to avoid failure as measured by TAQ and achievement motivation was insignificant ($r = -.18$; $p > .05$). A Chi-square analysis of the data was also performed. In the resultant fourfold contingency table, the two groups consisted of the top and bottom quartiles on the TAQ, and the two classifications consisted of the higher and lower groups, classified on the basis of the median score on the SCT. The over-all X^2 was 5.19 ($p .02$). The results suggest that the negative relationship between SCT and TAQ scores hold good only at the extremes of the distribution of test anxiety variable, and, as such, it is difficult to say whether or not the SCT taps the strength of a motive to avoid failure. The results also indicate the need to partial out the anxiety drive component in studies designed to measure the effect of achievement motivation on performance. The findings further raise some doubt as to the validity of most studies relating manifest anxiety and performance, since in such studies no attempt has been made to eliminate the effect of achievement motivation.

- 702 MUTHAYYA B C: Influence of age on level of aspiration among adolescents. Indian Educational Review 1967, 2(1), 91-6. 11 ref.

Discusses a study undertaken to explore whether change in age causes a consistent change in the aspiration behaviour of adolescents. Six tasks (3 performance and 3 non-performance) were administered to a sample of 235 students in the age group 13-17 from classes IX to XI of Madras city schools. The result showed that Mean Goal Discrepancy Score increases with increase in age, suggesting that aspiration levels are influenced by the maturation process accompanying the increase in age. This trend was consistent though not always significant.

- 703 NARAYAN RAO S: Distribution of ability among university students. Journal of Vocational and Educational Guidance 1967, 13(1), 18-24.

A group of 2,244 undergraduate male students in the S.V. University was administered the Raven's Progressive Matrices Test, in order to determine the validity or otherwise of the general notion that students in professional colleges have higher ability than those in non-professional institutions. The results confirm the popular belief. However, high ability or high level of past achievement in the pre-university examination is found to be a poor predictor of performance in professional course like engineering. The Chi-square tests of the relation of ability and achievement revealed that they are independent. Therefore, selection of students on the basis of past performance (as a predictor of success) appears to be unsound. It has been further suggested that suitable steps should be taken to induce students of superior ability to take up courses in social sciences and humanities in order to provide suitable personnel for fields like judiciary, administration and education.

- 704 NIJHAWAN H K, NATH P: Analysis of teachers' ratings of the behaviour of nursery school children. Psychological Studies 1967, 12(1), 53-65. 17 ref.

Twentyfive children from a nursery school in Chandigarh were rated by 3 teachers in 5 social traits - cooperation, aggression, ascendance, sympathy and negativism, on a 9-point scale. To work out the validity of the ratings, observational scores were obtained. The validity coefficients for the 5 traits when pooled ratings were used, ranged between .29 to .43. Analysis of variance was computed to test the variance between raters, rates and traits. Leaving aside interaction, the F-ratios were significant beyond .01 level. The reliability of ratings by the Ebel method ranged between .27 to .63 while average inter-rater reliability ranged between

.29 to .69 (unadjusted ratings) and .45 to .90 (adjusted ratings). The results indicate that the teacher's estimate of the behaviour of their wards especially in the early years when behaviour still is not much inhibited, is reliable.

705

SINHA A K: Psychology and non-psychology college males - comparison on some personality traits. *Journal of Vocational and Educational Guidance* 1967, 13(1), 12-17. 6 ref.

Taylor's Manifest Anxiety Scale, Maslow's Security-Insecurity Scale and Eysenck's Neuroticism Scale were administered to two groups of male students (172 each), one group comprising students of psychology and the other students of Arts. The difference between the mean scores of the two groups was not significant even at the .05 level (z-test) on any of the three tests. This was true for all the groups viz, purely undergraduate students and both taken together. This proves the hypothesis that psychology students will not differ significantly from non-psychology students on the traits of anxiety, insecurity and neuroticism. As expected, it was found that psychology majors do not betray evidences of poorer adjustment than non-psychology majors. Further, psychology and non-psychology students did not differ significantly on any of the traits investigated. The difference between the PG and UG boys was also insignificant on all the traits for both psychology and non-psychology groups, as also for both taken together.

706

SOKKIAH N J, SOUNDARARAJARAC T h: Investigation of the leisure time activities of high school pupils in Coimbatore District. *Journal of Educational Research and Extension* 1967, 3(3), 94-102. 2 ref.

A sample of 300 pupils (150 boys and 150 girls) was subjected to an investigation consisting of a checklist and a questionnaire. It was found that the following ten activities rank high among the 55 in the checklist: 1) reading newspapers, 2) reading lessons, 3) helping parents, 4) worship, 5) reading books for knowledge, 6) listening to radio, 7) reading, 8) visiting relatives, 9) talking with friends, 10) attending film shows and playing games. The following activities got the last 10 ranks: 1) N.C.C., 2) girl guides, 3) camping, 4) fishing, 5) woodwork, 6) dancing, 7) mat weaving, 8) basket weaving, 9) weaving, 10) scouting. Recommendations for developing the leisure time activities have been made.

707

VYAS S K: Study habits of science and arts students. *Journal of Psychological Researches* 1967, 11(1), 19-21. 4 ref.

An inventory of 37 items was administered to 249 science and 220 arts (Pre-university) students in 5 women's colleges of

Madras City. The items can be broadly classified as under: 1) reading facilities at home or hostel; 2) study techniques; 3) reading in the class room; 4) reading in the library; 5) preparation before examination. Significant difference in the score (.01 level) in respect of utilization of library by the two groups, accounts for the small but significant difference between the mean score of the two groups. The arts group made better utilization of the library. This difference could probably be attributed to the following: 1) arts students are allotted more library hours in the college programme; 2) they do not have prescribed textbooks in some optional subjects.

EDUCATIONAL RESEARCH

708

SAMANT D G: Making of educational research. Bombay, Popular Prakashan 1966. ix, 92p. 25 ref.

The book consists of 7 chapters: Chapter I: definition of the term educational research; Chapter II: discussions on detection, selection, formulation and definition of the problem; Chapter III: 1) a list of 278 problems in educational research in India and 2) a chronological list of thesis on educational problems accepted by the Bombay University for Ph.D and M.Ed degrees; Chapter IV: qualifications to be possessed by educational researchers; Chapter V: scientific thinking and steps involved in educational research; Chapter VI: outline of the methodology of research; Chapter VII: preparation of research reports.

EDUCATIONAL SOCIOLOGY

709

BOPEGAMAGE A: Ranking of status characteristics - significance of education, character, social service as scale variables. (In UNESCO RESEARCH CENTRE, DELHI. Status images in changing India-a study based on two surveys ... Bombay, Manaktalas, 1967. 63-6).

Education ranked first as the status criterion as expressed by rural and urban informants of village Malhan (Poona). About 43% rural sample considered education as the important criterion for status. On the basis of caste, artisan and depressed castes considered education to be the most important determinant of social status. With education they would be able to secure a better occupation. The educated government officials create an image. On the basis of occupation, the middle artisan groups and a few agriculturists felt that education was more necessary to determine social status than any other occupational categories. In the urban-industrial sample, especially the functional caste groups reacted similarly. Among the occupational categories, the low industrial non-manual workers, skilled and unskilled labourers favoured education as status determinant.

- 710 KRISHNA MOORTY S: International understanding and the social studies teacher. Social Studies Teacher 1966-67, 3(3), 18-21.

The curricular and co-curricular programmes of the schools should be so planned as to foster international understanding among school children. The role of social studies and the social studies teachers in achieving this objective has been stressed. The teachers whose role in this matter is very important should be trained in: 1) the proper use of psycho-educational techniques for promoting international understanding; 2) modes of developing international thinking; 3) the techniques of measuring activities and effecting attitudinal changes and 4) organising co-curricular activities.

- 711 RUST J C W: Third milestone. Progress of Education 1967, 41(6), 202-7.

The building up of a new type of social unit, the academic community, has been urged, in which teachers and pupils would form a human family. The emergence of such a community is inevitable in view of the advent of the technological age, which demands a change in the existing social pattern. In this new set up, school would be the home of the pupil and the family residence only a hostel. At times when loyalty to the family are in conflict, pupils become unsettled and neurotic. Schools cannot make their fullest contribution to the community until they can command the first loyalty of their members. This also justifies the formation of an academic community.

EXAMINATION AND EVALUATION

- 712 BAYATI J L: Cumulative record card. Education 1967, 46(2), 17-22.

The nature and characteristics of the cumulative record are detailed. The cards help teachers to know pupils and predict their attainments, guide the school leaving pupils who seek either higher studies or employment, assist the employers to assess the interest, aptitudes and capacities of the employees and provide the basis for educational and vocational placement. The information to be given in the record should include: 1) a full view of child's growth and development in relation to the objectives of the educational programme of the school; 2) objective data and summary statements interpreting these data. Entries should be based on systematic observation. Lack of trained workers, time, co-operation and standardized tests causes difficulties in maintaining the records. Appointment of trained guidance workers and cooperation of teachers and headmasters can overcome some of the difficulties.

- 713 DEVDASON M D: Education Commission and internal assessment. NIE Journal 1966, 1(2), 51-6.

The role of the Boards of Secondary Education has been discussed in the context of the emphasis laid on the internal assessment system. The system can be made comprehensive by including at least the following major objectives that a course of study is expected to develop in students: 1) to acquire knowledge of terms, facts, principles and processes in a content area; 2) to develop the ability to apply knowledge in a new situation; 3) to develop attitudes and interests related to content area; 4) to develop skills in a content area. The objectives have their own implications both to the teaching and the testing programmes. The Boards in co-operation with the Departments of Education should set up a team of experts to study the objectives in terms of each subject area and identify the specific objectives which could be realized during the learning process. The experimental schools suggested by the Commission should function directly under the Boards as Laboratory schools for evaluation.

- 714 HARPER A E: Ninety marking ten - a study of examinations. Indian Educational Review 1967, 2(1), 26-41. 10 ref.

A study was undertaken to find out whether the individual variations in marking by different examiners are within permissible limits. The history answer books of a secondary school board examination were marked by 90 experienced examiners of the same board. The students answered the same questions. There was considerable variability in the range of marks assigned to each of the 10 answer books. The narrowest range was 26% between the highest and the lowest marks assigned to the same answer book. The widest range was 56%. There was also no agreement on the average merit of the 10 candidates as a batch. The average marks of the group ranged from 16 to 40%. Pass percentage ranged from 10 to 80. The range in ranks also varied widely. Depending on the examiner, one particular candidate secured all the ranks from 1 to 10. It has been concluded that only 2 out of 3 students receive marks which are even within 10% marks deserved by them. The need for normalized scale has been stressed. Examiners should indicate only rank order.

- 714 HILL W H: How examinations influence methods of study. Rajasthan Board Journal of Education 1967, 3(2), 3-9.

Unlike the traditional essay type questions, the shortanswer and objective questions would discourage selective study, cramming, and relying on guide books. Systematic and sustained learning would be required to answer such questions. Objections against the introduction of short-answer and objective

questions are as follows: 1) for answering multiple-choice questions students would try to acquire knowledge in fragments rather than comprehensively; 2) students would learn to write and think in a telegraphic language rather than in a discursive style ; 3) since no writing is involved in answering questions students would become lazy; 4) answer may be guessed and adoption of unfair means in the examination hall would be easier; 5) students would be exposed to errors, since along with the correct answer more than one incorrect answers are given. The objections are not valid on the following grounds: 1) the way of preparing for examinations is determined more by the process of thinking required by the question rather than the forms of questions. Irrespective of the type of questions, students would store up fragments of information required for answering; 2) ability to report briefly but precisely should be preferred to verbosity generally involved in answering essay-type questions; 3) good short-answer and objective questions do not reduce the amount of mental activity required to answer them; 4) although guessing is not entirely undesirable, it should be controlled; 5) multiple-choice questions enable students to discriminate between true and false statements.

716

HILL W H: Malpractices in examinations. Progress of Education 1967, 41(7), 242-6, 249.

Over-emphasis on external examinations for assessing educational achievement leads to the adoption of malpractices by students. Emphasis should be on internal evaluation in school without weakening the external examination. The internal evaluation programme should be so organized as to enable the teacher to assess the progress appropriately. At the same time the students should be made to understand that these tests are aids to education which reveal their strong and weak points. A programme of evaluation which is understood by students and in which they take an interest would help in developing a more positive attitude towards tests and examinations. Since secondary education is a stage complete in itself and not a qualification necessary for admission to the university, the standard of success in secondary examinations should not be inappropriately high. Unless a reasonable standard is determined, there is the likelihood of students resorting to unfair means.

717

HILL W H: Role of the training college in examination reform. Teacher Education 1967, 1(2), 21-8. 6 ref.

An improvement in the existing external examination as well as internal assessment procedures would create an impact on the educational system. For making students capable of undergoing the improved evaluation system and also to develop the right type of internal assessment system, teachers should understand the purposes, principles, tools and techniques of evaluation.

This topic should, therefore, be included in the teacher education curriculum. Training colleges should also reform their evaluation procedures. The training colleges and university departments of education should stimulate the idea of university examination reforms by providing good-examples in their own evaluation practices. Training colleges should conduct research on evaluation problems and should interpret and disseminate research results.

- 718 KARNATAK UNIVERSITY COLLEGE OF EDUCATION, DHARWAR: Practical approach to examination reform. Towards Effective Teaching. (University College of Education, Karnatak University Bulletin No.5). 147p. 9 ref.

Theoretical aspects of examination reform have been considered under the following heads: considerations before a paper setter; design of a question paper; construction of objective based items; evaluating the quality of a test; preparation of multiple-choice test items. Based on these discussions model question papers on general science, general mathematics and social studies for standards VIII and IX conforming to the syllabus prescribed in Mysore State, have been designed.

- 719 KRISHANA MURTY S: Internal assessment and educational evaluation. Educational Review 1967, 73(1), 7-10.

Internal assessment may be divided into two areas: 1) academic (appraisal of the subject attainment), and 2) non-academic (assessment of interests, attitudes, habits and personality traits). The tools used are: 1) written tests; 2) oral tests; 3) observational methods; 4) practical examinations; and 5) psychological test. Teachers should be specially trained in the internal assessment technique. Periodical testing results should form the basis of the final assessment of the students' achievement. External assessment should be supplementary to internal assessment, and in due course further improvement in the latter might supplant external assessment altogether. The criticism that the scores obtained in the two types of assessment do not correlate well, is unfounded. The variability is caused by the subjectivity and unreliability inherent in the external assessment system.

- 720 KULANDAIVEL K, SOUNDARARAJARAO T R: Analysis of the marks obtained by pupils in the S.S.L.C. Examination, April, 1965. Journal of Educational Research and Extension 1966, 3(2), 48-59. 5 ref.

The study covers the marks obtained by 810 pupils from 9 selected schools in Coimbatore. The objective was; 1) to make a comparative study of the performance of students in various

subjects; 2) to investigate any difference between the performance of boys and girls; 3) to study the correlation between the performance in various subjects, and 4) to attempt a better interpretation of individual scores, in relation to the performance of the whole group. The analysis revealed: 1) boys scored high in general science and the standard deviations in composite and general mathematics were greater than in other subjects. Girls scored high in mathematics, followed by science, Tamil, English and social studies; 2) there was no significant difference between the performance of boys and girls. Both did equally well in English and general science. Girls scored more in Tamil, composite and general mathematics. In social studies, boys scored more; 3) the correlation between the performance in different subjects was high. The study also provides percentile rank equivalents corresponding to the marks in various subjects.

721

MITRA S K: Education Commission and evaluation. NIE Journal 1966, 1(2), 36-41.

Some of the problems involved in the implementation of the Commission's proposal to abolish compulsory external examination and to introduce internal evaluation system have been discussed. The proposed scheme of voluntary external examinations at the end of the primary and lower secondary stages would be in effect similar to the existing external examination, the only difference being the absence of pass or fail in total. The scheme would hardly rid educational growth of the inhibiting effect of external examinations. Other problems are: 1) maintenance of the gradual progress from class to class; 2) tendency of schools to be lenient in grading their pupils, thus making inter-school comparability of certificates difficult; 3) unfavourable teacher-student ratio leading to the teacher's ignorance of the child's individuality; 4) poor educational background of teachers.

722

RAINA M K: Predictive value of degree marks. Journal of Vocational and Educational Guidance 1967, 13(1), 7-12. 11 ref.

A study was undertaken to determine the extent to which degree marks (B.A) in various subjects individually predict academic achievement at the Masters degree level. An analysis of the marks obtained by 215 students of Rajasthan University in B.A. and M.A. examinations in Hindi, history, political science and economics showed that degree marks cannot predict the marks at the M.A. examination. Academic achievement involved various factors and only a complex combination thereof can determine the success or failure of a student. Present method of student selection based upon the result of the previous external examination is unreliable. Various scholastic aptitude tests are valuable supplements to such results.

- 723 SINGHAL R P: Examination problems - an analysis. Patriot 12 March 1967. p.iv, cols. 1-3. 1800 words.

The need for a reformation of the examination system in India, which is practically subordinated to teaching, was felt by various Education Commissions. A reform in the external examination system can only be achieved by: 1) improving question papers; 2) appointing paper setters on the basis of competence; 3) improving the technical efficiency of paper-setters, 4) standardizing the scores in different subjects; 5) mechanizing the evaluation and compilation of results. A viva-voce test as recommended by the Central Board of Secondary Education should also be introduced. A corresponding improvement in the curriculum, instructional material and teacher education programme should also be brought about.

- 724 SRIVASTAVA H S: First priority in examination reform. Home and School 1966, 7(4), 2-5.

The shortcomings of the existing question papers have been brought out and the following steps have been suggested for obviating them: 1) preparation of a design for setting the question paper. The design includes a) objectives to be tested and the proportionate weightage to each, b) major areas of content to be covered and the proportionate weightage to each, c) forms of questions to be used in order to test a particular objective and a specific area of content, d) scheme of options, e) division of the question paper into sections, if necessary; 2) preparation of a blueprint based on the design which includes a) number of questions in each form, b) numerical weightage of each question, c) objective tested by each question, d) content area covered by each question, e) form of each question, and f) scheme of options; 3) construction of questions based on the blueprint; 4) editing the question paper; 5) preparation of a scoring key and a marking scheme; 6) preparation of a question-wise analysis giving the following dimensions of each question: a) objective tested, b) specification of the underlying objective, c) the form, f) estimated difficulty level, g) estimated time required for answering it, and h) the marks.

- 725 WAGLE M M: Assessment and examination of students. Indian Journal of Medical Education 1966, 5(5), 581-4.

Suggestions have been offered for the assessment of post-graduate level students in pediatrics. Instead of a short final examination at the end of the three-year course, periodical internal assessment system may be introduced. The points to be considered are: 1) regularity in carrying out ward and laboratory assignments; 2) performance in group activities;

3) initiative and imagination displayed in the thesis project; 4) performance in the written test; 5) overall improvement as compared to the achievement in the previous term; 6) performance in relation to the total performance of the group. It may, however, be necessary to prevent any possible misuse of the internal assessment system. The final examination should consist of written and practical examinations. Part of the essay type of examination should be replaced by objective tests. The essay type questions should be subjected to moderation and the answer papers should be examined independently by at least two examiners and the average of the scores should be assigned to the candidate. In the practical examinations the assessment should be made of, the candidates 1) understanding of the subject; 2) knowledge of the more common problems; 3) factual knowledge; 4) knowledge of more recent advances; 5) ability in logically arguing in a given situation and coming to a tentative conclusion. The desirability of appointing examiners from other universities should be reassessed.

FINANCE

726

ROY S P: Presidential address at the 6th Annual General Conference of All India Secondary Teachers' Federation at Udaipur, 1966. Teachers' Journal 1967, 46(2), 27-30.

Contrary to the view expressed by the Education Commission (1964-66) it has been stressed that in a country with a lower national income, much higher percentage of it should be allotted to education, to break the vicious circle formed by poverty at one end and illiteracy at the other. The gradual fall in successive Plans in allocation to education, as compared to the total outlay, has been deprecated. Instead of fixing educational expenditure in terms of the percentage of GNP and per-capita expenditure on population and student basis, the Commission should have recommended an allocation of a reasonable percentage of the Central and State budgets. Similar allocations from the National and State Plans could be made. Commission's recommendation for the isolation of talents and their development in selected institutions, have been criticized.

727

SANTHANAM K: Education and the economy - critique of Kothari Commission's report. Commerce 1966, 113(2903), 38,40.

The recommendations of the Commission have a two-fold bearing on Indian economic development: 1) repercussions of the proposed increase in educational expenditure on the budget and taxation policy, and on the distribution of national income and employment and 2) the impact of expanded agricultural, vocational, technical and technological education and

scientific research on the economy. The validity of the financial projections as presented in the report have been criticized. Even assuming an increase in the national income at the rate 6%, the prospects of increasing the corresponding percentage of educational expenditure from 2.9 to 6 are bleak. Therefore, the statement that average annual increase of 10% in educational expenditure is reasonable, does not make much sense. If 6% of national income has to be diverted to education, at least 5.4% should be provided out of the Central and State education budgets. Since education is a major responsibility of the States, the shares of State and Centre would be 4 and 1.4% respectively. This means that educational expenditure should be of the order of 50% of the State budget and 12% of the Central budget in the next 5 years. This possibility is doubtful. Even on a liberal estimate, not more than 5% of the national income could be allocated to education in 1985-86, which means that per capita expenditure would rise from Rs.12.1 to Rs.27, instead of Rs.54 as projected in the report. The setting up of one agricultural university in each State and vesting the responsibilities of training research and extension in it have been welcomed. This would bring an end to the existing dichotomy according to which universities look after the training only and the rest goes to the agriculture and community development departments. The universities should however be concerned with education at post-graduate level. In analogy with agricultural universities, the engineering colleges should be taken out of the present universities and affiliated to a federal engineering university. The recommendations on technical education and scientific research have been generally appreciated.

FUNDAMENTALS OF EDUCATION

- 728 CHAGLA M C: Aims of education. (In his Education and the nation. Bombay, Allied publishers, 1966. 6-13).

The educational system should achieve the social and political goals aimed by the country. Free education up to the age of 14, furthering the causes of secularism, national integration, and social justice are some of the aims. Integrated education should bring about a proper synthesis between sciences and humanities. Quality should be ensured at all stages. Diversification of courses and facilities for part-time courses and correspondence courses should be provided. Great attention should be given to postgraduate stage which sets the tone and provides teachers for the entire educational system.

- 729 OLKAR B A: Bertrand Russell and the aims of education. General Education Quarterly 1967, 3(3), 43-58. 34 ref.

Russell's writings on the aims of education have been surveyed. It has been shown that he examines educational philosophy from different standpoints such as social reconstruction, individual culture, preservation of democracy and taming power. Notwithstanding Russell's contention that he is a sceptic, it has been argued that he has not been sufficiently critical about the efficacy of doubt. Consequently, he has not developed a critique of doubt. The other lacuna pointed out is that he has not developed a rational theory of tradition, which is indispensable for an acceptable educational philosophy. A comparison of the aims of education as formulated by Russell and Whitehead shows that Russell is as profound and as comprehensive as Whitehead. A comparative summary is given in the appendix.

730

SALAMATULLAH: Education and human nature. Conspectus 1967, 3(1), 33-40.

Four popular concepts of human nature and their educational implications have been discussed; 1) human nature is the original and native disposition. This results in motivating students for personal rewards and reinforcing in them a selfish attitude; 2) human nature comprises certain faculties as reasoning, imagination and memory. In education, this leads to compartmentalization of the subject matter; 3) human nature is empty and formless. Therefore, in the educative process, the student is only treated as a passive receiver; 4) human nature has a social basis; it bears some resemblance with general institutional pattern and the prevailing intellectual climate in the society. The two views on the social basis of human nature are: 1) the relations of individuals in a society are external. Education based on this does not allow social control over the educative process; and 2) man's nature is ultimately determined by the nature of his society. This view recognizes social purpose of education as basic to individual development and social control of the educative process as essential. Education can play a great role in transforming human nature for dealing with the three main problems: confronting the world: war, competitive economic system and racial, communal, and national discrimination.

731

VERMA K K: Reconstructing Indian educational philosophy. Educational Review 1967, 73(1), 14-16.

Indian education should be the product of philosophical thought developed in India. Vedas, Upanishads, six schools of philosophy, the Gita, the Buddhistic and Jain scriptures give a sound basis for educational thought. The role of philosophy in Indian pedagogy in the past has been stressed and compared with the present educational thoughts. Edu-

cation was never a matter of policy, but was an outcome of certain philosophical principles. Educational philosophy should have its own ideals independent of politics and economics. The concept of Svadharma (duties) was the ideal of education in the past and it should be impregnated into the present educational system.

- 732 ZAKIR HUSAIN: Enshrine eternal values in our education. Bhavan's Journal, 1967, 13(16) 28-33.

Education is the process by which the mind attains its fullest development. It is not just shaping an individual so as to fit in a scheme, project or plan. By a wise choice of the eternal values enshrined in the heritage of Indian culture and by teaching these values, the individual's sense of values is awakened. The value of justice and fairplay is given a place of prominence. Education should move between the two poles of the eternal and the temporal, between an awakened conscience and skilled efficiency.

GUIDANCE AND COUNSELLING

- 733 BHATNAGAR R P: Śikṣā meṁ nirdeśan sevayam (= Guidance services in education) (Hindi). Naya Shikshak 1966, 9(1), 32-8.

Guidance service cannot be separated from the educational system. It cannot be rendered by a guidance specialist, without the cooperation of teachers. The service is beneficial in the following circumstances: 1) in selecting the appropriate stream at the end of the eighth class; 2) in planning lessons by teachers to suit students of different levels of intelligence; 3) in developing favourable attitude towards studies; 4) in guiding students not desirous of continuing in schools to a suitable professional course. The guidance service helps establishing harmonious relationship between students and teachers. It also prevents discontented students from indulging in unsocial activities. The reasons for unsatisfactory guidance service in Indian schools are: 1) lack of properly trained guidance worker; 2) apathetic attitude of teachers and administrators. Short term summer courses for teachers and adequate training facilities for guidance workers have been suggested.

- 734 DAVE I: Śālā adhyāpak ke liye nirdeśan - praśikṣaṇ (= Guidance training for the school teachers), (Hindi). Naya Shikshak 1966, 9(1), 138-45.

In view of the economic and social changes in the present day world, the nature of teaching has also undergone many changes. The responsibilities of teachers have increased.

The potentialities of students need to be developed to the fullest advantage of the society. Deficient students require personal attention of teachers and counsellors. Thus guidance service and counselling have been recognized as indispensable parts of the school system. The teacher training courses should therefore, be guidance oriented. The headmasters and principals of higher secondary schools should also be given short-term training in guidance and counselling during summer vacations.

- 735 DE B: Recommendations of the Education Commission (1964-66) on the role of guidance in education; a critical study. Journal of Vocational & Educational Guidance 1967, 13(1), 1-6. 2 ref.

The main points of criticism are: 1) specialized nature of guidance service has not been recognized; 2) guidance service in the primary schools cannot be rendered by teachers. The Commission should have recommended minimum guidance service by qualified counsellors; 3) guidance service to 10 secondary schools by one visiting counsellor is inadequate; 4) although the introduction of model comprehensive guidance service in selected secondary schools appears to be realistic, practical experience of Uttar Pradesh and Bihar proves the contrary; 5) the basic difference in the functions of teachers and counsellors has not been appreciated. At different stages the Commission has recommended sharing the guidance function by teachers.

- 736 HASTAK P D: Adhik ākarṣak, prabhāvkārī aur saphal parāmarśa. (=More alluring, effective and successful counselling) (Hindi). Naya Shikshak 1966, 9(1), 73-7.

The qualities of good counsellors are: 1) possession of impressive personality and alert mind; 2) possession of extensive rather than intensive knowledge of counselling; and 3) capability to maintain harmonious relationship with teachers. The counsellors should take note of the following: 1) social and economic disparities among students; 2) individual differences of students; and 3) levels of students and their requirements. The spheres of counselling are: 1) educational; 2) vocational; 3) personal; and 4) family problems. In order to identify students who are in need of counselling the check list available with the Central Bureau of Educational and Vocational Guidance would be useful. Education for counselling is a continuous process. The more a counsellor learns the more he would be able to give advice on problems of changing nature.

- 737 KAKKAR S B: Teacher as a guidance worker. Educational

Review 1967, 73(2), 42-3.

Guidance should not be considered a special service distinct from instruction. Teachers should integrate guidance with teaching. The teacher as a guidance worker makes the pupils receptive towards the lesson. This integration provides many learning opportunities which enable the student to have a clear idea about his goal, to assess the progress made by him, and to discard defective methods of learning. The resources available to guidance teachers are counsellors, specialists, administrators, parents, teacher-training associations, guidance bureaus etc. Besides helping students directly, the counsellors and specialists can assist the teachers in understanding child behaviour and in guiding the development of children.

738

MOHSIN S M: Education Commission and guidance. NIE Journal 1966, 1(2), 30-5. 2 ref.

The anomalies in the recommendations regarding guidance and counselling have been pointed out. While presenting an elaborate account of the functions of an ideal guidance service in primary schools, it had been expected that such services could be rendered by primary school teachers. The modicum of guidance training to primary school teachers as embodied in the recommendations would hardly make them qualified guidance workers. The suggested use of community resources to meet some of the guidance requirements needs clarification. At the secondary stage the crucial role of guidance service in diverting students to various courses had been admitted. This function is expected to be discharged by one visiting counsellor for every 10 schools and by teachers. Again the proposed comprehensive guidance service in selected schools would be a luxury. The Commission does not seem to appreciate the usefulness of guidance in the discovery of talent and identification of underachiever.

739

NAIK K C: Experiment in student counselling. Hindu 16 February 1967, p.6, cols.3-6. 1776 words.

Describes the experiment conducted by the author as the Vice-Chancellor of the University of Agricultural Sciences, Bangalore, in student counselling, as a measure for combating student indiscipline. The introduction of term system of education and compulsory NCC training as a curricular subject had reduced the idle hours. Each teacher responsible for 20 students, probes into their curricular, extra-curricular, personal and miscellaneous problems, and tries to find solutions or render appropriate assistance. The Vice-Chancellor meets the students periodically. Student counselling is a continuous programme to be operated according

to the changing needs of the situation.

- 740 PARIKH J C: Statistical survey of school guidance programme in Kaira district (Gujarat). Education & Psychology Review 1967, 7(1), 34-41.

In about 50% of the 80 schools surveyed, guidance services are provided, but only by inadequately trained career masters. No qualified counsellors are available. Teachers also devote very little of their time to guidance activities. A large number of schools concentrate guidance activities in class X but the pupils of class VIII, who have to choose any one stream of the diversified courses, are neglected. In most of the schools, guidance activities are restricted to career talks. Availability of guidance literature is very much inadequate. Only 64% of the schools maintain cumulative record card and 50% of the schools find this record useful for guidance activities.

- 741 ROTHNEY J W M: Some guidance principles. Naya Shikshak 1966, 9(1), 7-15.

Qualified counsellors should render guidance service to all students individually and not to deviants only. In counselling eclectic approach has been suggested. Because of the wide range of students' behaviour, performances, adjustments and enthusiasm, no single method is useful. As the student grows his problems increase or change and therefore no case can be considered as closed. Guidance is not just dealing with emergency situations but a continuous process. At each session with the student, previous discussions and decisions are recalled and the cumulative record consulted. Counselling requires cooperation of teachers who have sufficient opportunity to observe a student and also of the parents who can provide a correct description of his behaviour. Counselling does not mean only vocational guidance, it includes assistance for emotional and adjustment problems also. Responsibility for guidance should be placed in the hands of qualified personnel and not on teachers.

- 742 SINGH R P, HEDGES L E: Counselling with agriculture students. Indian Education 1967, 6(3), 22-7. 5 ref.

For effective counselling the teacher should know 1) the types and extent of information required about the individual student; 2) methods of obtaining the information; 3) determining the counselling approach; and 4) follow-up of the counselling programme. The information to be secured about individual students is; problems and needs of the individual; physical, educational, socio-economic and vocational

factors, abilities and interest. This information may be obtained through; 1) personal interview; 2) tests; 3) cumulative record cards; 4) personal document; and 5) questionnaires. In addition, home visitation programme could be adopted with advantage. A combination of the directive and non-directive approach would be useful. However, the approach should be adapted to a particular student and his specific problem. Counselling results can best be followed up through an effective programme of home visitation.

HEALTH CARE

- 743 BHIMANI V R, CHABLANI P V, D'SOUZA S L: Students health survey. Journal of J.J. Group of Hospitals and Grant Medical College 1967, 12(1), 29-34. 3 ref.

Of the students admitted to the Grant Medical College during the years 1963 to 1965, 96.8% attended the first medical examination. Only 23.5% attended the re-examination. Very few students have taken tetanus toxoid immunization. As the students sustain injuries while working in the wards and dissection Hall, immunization should be compulsory. The incidents of microcytic hypochromic anaemia was 30.8% in 1963 (48.05% among females and 18.17 among males). These results were rather surprising as most of the students came from upper middle class families.

HIGHER EDUCATION

- 744 AIRAN J W: Affiliated colleges - their problems and their role. ICBE Bulletin 1967, 3(1), 5-8, New Concept 1967, 1(2), 57-60.

It is curious that the task of handling two inter-related and inter-dependent problems, viz. granting affiliation and sanctioning grant-in-aid, has been vested in two different bodies. The idea of strengthening the machinery for the traditional inspection of affiliated colleges is not in tune with the suggested modern approach involving mutual understanding among affiliated colleges for maintaining and raising educational standards. Recommending fixation of standard fee rates and at the same time making provision for higher fees on the plea of providing better facilities, would give rise to unhealthy practices. The Commission does not seem to have indicated the distinctive roles to be played by universities as such and colleges as such. It is doubtful whether the high schools would be able to bear the additional responsibility of the pre-degree course. This will affect the financial resources of the affiliated colleges, required for the three-year degree programme. The Commission seems to have been guided more by economic

considerations in the matter of affiliated colleges rather than by their potentialities.

- 745 ANJANEYULU D: Grooves of academe - thoughts on higher education and research in India. Quest 1966, No.51, 54-8.

Lack of curiosity about the problems of the contemporary world falling beyond the scope of syllabi is a common feature of both student and teacher at Indian universities. The stereo-typed and examination-oriented system of education provides little scope for imagination and initiative. Career motivation rather than dedication to learning dominates the academic world. Research in humanities seldom reflects any intellectual initiative or fresh thinking. Hardly any teacher in Indian universities is capable of inspiring students. For students of humanities, universities are not liberal enough and for the votary of sciences and languages, they are not pragmatic enough.

- 746 DESAI D M: Enrolment trend and behaviour in higher education in the Gujarat State. Education & Psychology Review 1967, 7(1), 10-21. 20 ref.

Enrolment at the undergraduate stage constituted 5.1% of the total population of the age group 18-20. Although the problem of numbers is not alarming, further expansion will affect the standard. The faculty-wise behaviour of enrolment (1963-64) indicates a greater proportion of students taking liberal arts than science courses. However, the percentage of students taking arts courses is significantly less than all-India average. Enrolment in commerce, engineering & technology, agriculture, and law is higher than all-India average. The enrolment in postgraduate education and research (1961-65) indicates an increase of 76.9% in 1965 over that of 1960-61. The annual increase is however not satisfactory and expansion at the postgraduate level is called for. The enrolment at this level during the same period shows that almost half the students are in Arts faculty. In engineering and medicine the increase in 1964-65 was by 0.2 and 2.8% respectively over the figures for 1961-62. The bulk of postgraduate research is in humanities and physical sciences. As regards women education, a steady growth is noticed since 1953.

- 747 GAJENDRAGADKAR P B: Problems of university education in India to-day. General Educational Quarterly 1967, 3(3), 1-18.

Increasing number of students from different social classes and the explosion of knowledge form a challenge to universities. The scope and nature of higher education should be enlarged and made society-oriented. Since the creation

of a new social order is the ultimate goal of university education, it should inculcate in students complete loyalty to: 1) the principle of unity; 2) doctrine of secularism; and 3) social equality and justice. Universities are the conscience of the nation and students should be able to analyse socio-economic problems. Importance of free inter-communication between universities and their alumni on socio-economic problems has been emphasized. There should be a common medium of instruction and English should continue for the present. University participation in extra-curricular activities creates a sense of duty among students. Students and teachers may have discussions on socio-economic questions. Universities should develop a university movement on constructive, positive and creative lines. The causes of student agitations should be examined by educational authorities. University autonomy, freedom of Vice-chancellors, and protection from external political pressure would prevent student agitations. Socio-economic and generational problems and corruption in high offices are contributory to student unrest.

- 748 MUDALIAR A L: What a university is or ought to be. Educational Forum 1967, 12(1), 1-8.

Overcrowding in colleges, lack of qualified teachers, growing sense of indiscipline among students are reasons underlying the lowering of standards of university education. External influences have been mainly responsible for student indiscipline. At this critical stage there is a greater need for universities to produce right type of leaders. The growing importance of various professional courses such as medicine, engineering and law has been pointed out. It is suggested that each profession should practice a definite code of conduct. Interference of politicians in universities has been strongly criticized. Closer co-operation between university authorities and the Government has been sought.

- 749 NAIK J P: Concept of 'major' universities - a redefinition. University News 1966, 4(12), 1-2.

The concept of major university rather than the term 'major' is important, as no university should be labelled as such. The concept includes 3 main proposals: 1) a cluster of Centres of Advanced Study in a number of subjects; 2) an adequate number of talented students from various linguistic regions; 3) retention of English as the medium of instruction for the time being, to be replaced by Hindi in due course. No attempt should be made to pre-select universities for development as major universities. The scheme of the Centres should be expanded by the addition of two new dimensions: 1) concept of aspirant Centres; 2) creation of clusters of Centres. The success of the scheme depends on 3 factors:

1) the choice of a Centre should command the approval of the academic community; 2) creation of clusters should not affect good university departments; 3) the Centres should not remain isolated from other departments and colleges.

750 PARTHASARATHI A: Universities and nation building. Quest 1967, 52, 19-26.

The role of universities in nation building has been discussed from the pure or basic and the applied points of view. According to the former the universities should be primarily concerned with the advancement and dissemination of knowledge in all its forms while latter favours the universities taking a leading role in influencing and moulding the social and economic order. Other points discussed in these contexts are: academic freedom and quality-quantity controversy. The threat to academic freedom is two-fold: external and internal. The threat to academic standards appears to come from within rather than from without. The problem of quality is political, since educational policies in States which control 66% of the outlay on education, are influenced by election strategy. Some steps suggested for fostering academic excellence and creating an atmosphere conducive to developing social values consistent with modern social requirements are: 1) making education a concurrent subject; 2) increasing the total outlay on education by 3 to 10% of the GNP; 3) allocating a higher proportion for higher education; 4) modernizing and reforming 10 best existing universities.

751 SHAH A B: Problems of educational expansion in India. General Education Quarterly 1967, 3(3), 64-72.

A total enrolment of the order of 3 million should be ensured during the next 10 years. Of these about 1.6 million should be enrolled in universities and affiliated colleges, and the remaining in diploma level institutions. Higher education should have two tiers: 1) junior colleges and polytechnics offering vocationalized terminal courses and preparing students for degree courses; 2) affiliated colleges and unitary or teaching-cum-affiliating universities. By 1975 about 1,716 degree colleges and 1,780 polytechnics and junior colleges should be established. As there are already 2,400 affiliated colleges, emphasis should be on the creation of 1) diploma level institutions; 2) improvement of affiliated colleges; and 3) conversion of some of them into junior colleges. There should be one affiliating-cum-teaching university for every 10 million population and one unitary university for every 30 million population. Considering the trend of enrolment at the postgraduate level by 1975 there should be about 80 universities, 55 of the affiliating-

cum-teaching type and 25 of the unitary type. Every State should have at least one university of either type.

- 752 TOPE T K: Universities and the law courts. General Education Quarterly 1967, 3(3), 59-63.

The recommendations of the Education Commission (1964-66) regarding settling of disputes purely educational in nature, in law courts have been criticized. The Commission's recommendation that the government should request the Supreme Court to review the trends observed in the recent decisions of the courts involving universities and educational institutions and to consider framing a suitable policy regarding this, is open to serious challenge on the following grounds: 1) the Supreme Court is not a policy making body but gives decisions in the cases coming before it, based on facts and the law point; 2) the Supreme Court has no administrative control over the high courts in India; and 3) any such policy framed would be unconstitutional.

INSTRUCTIONAL MATERIAL AND AIDS

- 753 BARLOW D: Radio to supplement educational material. NIE Journal 1967, 1(3), 10-14.

To be an effective supplementary instructional material radio programmes should be closely related to textbooks, syllabi and week-by-week work in the classroom. This requires close co-operation between the programme planners, teachers and the Directorate of Education. Periodic evaluation of the system with the participation of teachers should be made. A description is given of the programme jointly initiated in 1966 by the All India Radio and the Directorate of Education, Delhi with the co-operation of the British Council. It supplements two instructional materials, viz textbooks and TV programme. The weekly radio programme for students of class VI are devoted to the revision of English lesson already taught in the class. Teachers use the TV lessons on structures and words which they intend to introduce in classes. This is followed in classroom teaching and work is finished with the revision of the same structures on the radio lesson.

- 754 DAVIDSON P: Television, textbooks and instructional material. NIE Journal 1967, 1(3), 15-18.

Presents an account of the TV programmes for teaching English to the students of classes VI to VIII planned by the Delhi Directorate of Education in conjunction with the British Council and produced by the All India Radio. The weekly lessons are related to the syllabus and textbooks. The structure

presented on TV have either already been taught or are being introduced in that lesson. Only those structures, which are likely to be most difficult to present in the classroom are selected. In order to enable the classroom teacher to make the fullest use of each TV lesson. TV handbooks are produced annually. In addition, a Teacher's Note is circulated for each lesson.

755

DE N: Instructional materials for teaching geography in the senior school. NIE Journal 1967, 1(3), 32-6.

The recommendations of the Education Commission (1964-66) that teaching of geography should emphasize the unifying rather than the divisive aspect hold good only in theory. In practice, teaching cannot but be oriented towards a divisive approach to the subject: physical, regional, map reading and human occupations. The lack of space and equipment are the main handicaps in teaching geography in Indian schools. Based on experience, the author has suggested the following minimum requirements: 1) a graded scheme of work based on the prescribed syllabus for all classes upto the school leaving certificate examination; 2) suitable textbooks; 3) portable apparatus; 4) stencil set and duplicator; 5) wall maps and charts; and 6) mathematical instruments. The scheme of work should be based on a concentric plan i.e. separate sections should be taken up in the classes in rotation in each week.

756

KULKARNI S S: Evaluating instructional material - an empirical approach. NIE Journal 1967, 1(3), 19-25.

Two different approaches viz; 1) logical or rational, and 2) empirical or functional, for the evaluation of instructional material have been discussed and a combination has been suggested as ideal. In the logical approach experts give explicit decision on objectively defined dimensions, while in the empirical approach the merit of a book is ascertained in terms of student performance. In the evaluation process some information has to be collected from experts and some from students. Data to be collected are: 1) information about the book along with a statement of objectives (to be supplied by the author); 2) information regarding the subject-matter, vocabulary, and presentation of the material (to be supplied by the expert in a rating form); 3) evaluation of the try-out study in the school situation; 4) specific recommendations. The ideal procedure of the preparation of a book has been illustrated in a work-flow diagram. The steps suggested are: 1) drafting the manuscript; 2) reading by experts, 3) trying-out with students; 4) revising the draft; 5) checking on a rating form by experts; 6) trying-out with students in school situation; 7) criterion test validation study; 8) publication.

- 757 SHUKLA J K: Instructional materials and our schools. NIE Journal 1967, 1(3), 3-6.

Proper use of instructional material such as textbooks, write-ups, written lesson units, programme learning sequences for use in classrooms, specimen objects, and models, is essential for effective teaching. The demonstration school at Ajmer, organized and developed as a necessary adjunct of the Regional College of Education, has prepared instructional materials in agriculture, commerce, social studies, home science and English as a part of its activities. The materials were the result of sporadic attempts of a few teachers and have yet to be systematized and evaluated. For this purpose opportunities to use them in meaningful situation should be provided.

- 758 VASHISHT R S: Development of instructional material. Educational India 1967, 33(7), 226-29.

The significant changes are: 1) introduction of discipline approach to knowledge i.e. the development in the pupils not only of the concepts but also the hypotheses, theories and methods of the field along with concepts; and 2) the enunciation of a new psychological principle in the field of learning process. In order to translate the psychological principle into practical programmes it is essential that: 1) one should be able to indentify the subject which helps the learner to know the connection between things; 2) the key ideas should be cast in such forms as are within the intellectual reach of pupils of different ages; and 3) the fundamentals must be organized systematically.

MEDIUM OF INSTRUCTION

- 759 CHAGLA M C: Medium of instruction. (In his Education and the nation. Bombay, Allied publishers, 1966. 1-5).

A child should be taught in his mother-tongue and, therefore, the medium of instruction at the primary stage should be the regional language. But its use at the university level, as practised in some universities, would make inter-regional communication difficult. Lack of adequate educational material in regional languages would also be an impediment to educational progress. Therefore, the need arises for an all-India language as a means of communication between States and as language for exchanging ideas between scientists. Although Hindi has been envisaged in the Constitution as the common language, its immediate introduction as medium of instruction may not be possible. English should, therefore, be retained for some time to come. Even when Hindi attains the status of a common medium, English should be compulsory in

educational institutions.

- 760 CHATTERJI G C: Higher education in regional languages will hasten disintegration. Capital (Supplement) 29 December 1966, 97,99.

The reorganization of States on linguistic basis and the consequent adoption of regional languages as media of instruction at all levels resulted in weakening of interstate links. The recommendations of the Education Commission advocating the use of regional languages as media at higher level, ignoring the main bulk of evidence favouring a uniform medium, would further aggravate the situation. Universities would become parochial, and there would be no uniformity of standard.

- 761 DESHPANDE V R: Medium of education - a hypothesis. Indian Journal of Medical Education 1967, 6(1), 22-6. 4 ref.

The grasp of the language is the crucial factor in the process of learning. A deficiency in grasp is bound to be detrimental to the gaining of the first phase of knowledge and eventually the final phase (i.e. the real learning). A reasonable failure in grasp, however, can be compensated by the ability of a student at the cost of mental energy. There are limitations in the compensation and a fall in grasp below certain level would result in learning failure. This hypothesis appears to be tenable from a study with medical students. Students were able to express themselves in Marathi better than in English and the comprehension of the subject was also better. The regional language could, therefore, be used as medium of instruction with advantage.

- 762 English as medium of instruction in India (Editorial). Journal and Proceedings of the Institution of Chemists (India). 1966, 38(4), 255-7.

There should be only one medium of instruction in higher education throughout the country to facilitate inter-State movement of students. English has been serving this purpose and any attempt to replace it by regional languages, as suggested by the Education Commission, would vivisection India. The decision of U.P.S.C. to hold its examinations in all the 14 languages would mean relinquishing its power in favour of the State public service commissions and itself fading into oblivion. The All India Students' Languages Conference recommended the retention of English as the sole medium of instruction in higher education.

MORAL EDUCATION

- 763 MATTHEW A V: Moral Education - an opportunity and a challenge. Christian Education 1966, 16(4), 30-2.

True education is not merely communication of knowledge and skill but also perception of and commitment to values that preserve and enrich the life of society. A sense of values cannot be taught but has to be imbibed. The school atmosphere should be conducive to the development of such values. It is also possible to correlate formal education in values with school curriculum. The field of moral education is wide and is closely connected with many school subjects. Moral education does not render occupational guidance, but equips students with a sense of values for the occupations which they might take up. As a part of moral education, students should be given opportunities to participate in community activities both individually and in groups.

POLICY AND PLANNING

- 764 BHARATIYA JANA SANGH: Election manifesto. (In Patta-bhiram M, Ed. General election in India. Bombay, Allied publishers, 1967, 208-9).

Attempts would be made to implement the directive principles of the Constitution to provide free compulsory education to all children up to the age of 11 by 1971. Education would be free up to higher secondary stage. The language policy would be as under: 1) at the State level the provincial language would be the official language; 2) departments in the Centre which come into direct contact with the people would use Hindi and provincial languages; 3) Hindi would be introduced at the Central level; 4) examinations of the Union Public Service Commission would be held in all the regional languages. A common scientific terminology for all Indian languages would be prepared.

- 765 CHAGLA M C: Trends of educational development. (In his Education and the nation. Bombay, Allied publishers, 1966. 44-55).

During the Fourth Plan the emphasis would be on consolidation and quality of education. Short-term and long-term training programmes would be adopted to meet the shortage of teachers. Correspondence courses and summer schools would be organized to clear the backlog of untrained teachers. Introduction of mid-day meals and useful hobbies have been suggested to prevent drop out at the primary stage. Relapse into illiteracy could be stopped only by a large scale production of popular literature and a strong library movement. Provision of diversification at secondary stage and opening a

number of model schools in each State are suggested. No new universities would be started during the Fourth Plan. A model bill had been drafted to control private educational institutions.

- 766 COMMUNIST PARTY OF INDIA: Election manifesto. (In Pattabhiram M, Ed. General election in India. Bombay, Allied Publishers, 1967. 274).

The Party wants 1) free and compulsory education up to secondary stage; 2) reorganization of the entire educational system to suit the needs of a modern industrial India; 3) reduction of the cost of education; 4) creation of training facilities in industrial and technical courses for workers; 5) expansion of higher technical and scientific education; 6) academic and democratic rights for students and teachers; 7) banning by law the entry of police into educational institutions; 8) autonomy of academic bodies; 9) standardization of textbooks; 10) making available educational necessities at cheap prices; 11) making available minimum medical facilities and sports and physical training facilities to all students; 12) special facilities for women.

- 767 COMMUNIST PARTY OF INDIA (MARXIST): Election manifesto. (In Pattabhiram M, Ed. General election in India. Bombay, Allied publishers, 1967. 244-6.)

The Party would 1) upgrade primary schools into schools with seven years' course; 2) introduce compulsory free elementary education with a seven years' course; 3) make secondary education free; 4) bridge the gap between boys' and girls' education; 5) promote mother-tongue as the medium of instruction at all stages of education; 6) promote technical education; 7) raise the quality of education; 8) meet all the legitimate demands of the teaching profession so that the quality of teaching as well as the dignity of the profession is restored.

- 768 JOSHI A C: Science policy and the elections. Muslim University Gazette 1967, 16(9), 2-4.

In spite of the increasing investment in successive plans for scientific research, the performance has been at a lower level even than that of China. There is the need to place some inspirational mission before the scientists which would stimulate a coherent national response. In the present context of food crisis, development of synthetic food could be such a mission which would involve the participation of scientists and technologists of various disciplines. The broad national policy for science and the priority in research activities have to be immediately fixed in view of the limited financial and manpower resources. The develop-

ment of the Advanced Centres and major universities would weaken other institutions. Equitable distribution of research and development funds to all institutions has been urged.

- 769 PRAJA SOCIALIST PARTY: Election manifesto. (In Pattabhiram M, Ed. General election in India. Bombay, Allied publishers, 1967. 194).

Education would be aimed at liberating the alumni from the stranglehold of outmoded social customs and beliefs. A sense of discipline and national service should be developed in the students through compulsory NCC training, voluntary work camps, and training in democratic citizenship. To foster a spirit of modernism education would be science oriented. Differentiations in schools which create a privileged section would be abolished. Other programmes are: 1) introduction of free and compulsory primary education and correspondence courses; 2) utilization of radio for educational purposes; 3) reduction of student-teacher ratio; 4) improvement of the socio-economic status of teachers; 5) ensuring autonomy in the academic sphere; 6) emphasis on technical and vocational education; 7) free education up to the school leaving stage.

- 770 Quality and quantity (Editorial). Hindu 31 January 1967, p.6, cols.1-2. 532 words.

Although the qualitative aspect of education should be emphasized in view of the tremendous expansion in recent years, the programme for quantitative expansion is necessary provide educational opportunity to every child. The talented boys spotted from all schools should however be put in special 'optimum level' schools, where emphasis would be on excellence in the content and method of teaching. From these institutions leaders in every sphere of society would be produced. Evaluation of merit for selection to these schools should be done mid-way through and at the end of primary, and mid-way in the secondary course.

- 771 RATURI A S: Educational targets as an impediment. (In Nageswar Prasad and Juyal B N, Eds. Impediments to developments in developing countries. Varanasi, Gandhian Institute of Studies, 1966, 124-8. 4 ref).

Education is an investment of a special kind which is not the cause but the effect of economic growth. The belief in the concept of universal education may be one of the impediments to development when education is sought on account of its beneficial effects. The statement that

expansion of education brings about depolarization in society by providing equal opportunity for a larger number of people is untenable. Economic development, on the other hand, contributes to such achievement. The Third Plan outlay on education was more than the economy could bear. A plea has made to reduce the educational targets, because wrong conceptions of the role of education in development, and the consequent desire to provide universal free primary and secondary education, are impediments to development.

- 772 **SAMYUKTA SOCIALIST PARTY: Election manifesto.** (In Pattabhiram M, Ed. General election in India. Bombay, Allied publishers, 1967. 199-200).

The expenditure of all primary schools on teacher's salaries, buildings, books etc., should be the same. All expensive primary schools would be closed down by law. Children of all citizens would study in the same type of schools. A uniform primary education would lay the foundations of an awakened and enriched democracy. Other proposals are: 1) use of regional languages as medium of instruction; 2) relaxation of the rules of admission; 3) raising the percentage of passes in examinations, particularly by making English an optional subject; 4) provision for financial help and subsidized food for students from backward community.

- 773 **SWANTANTRA PARTY: Election manifesto.** (In Pattabhiram M, Ed. General election in India, Bombay, Allied publishers, 1967. 185-6).

Suggestions for arresting the disintegration and spirit of cynicism and disorder are: 1) a spiritual element alongside of the humanities and sciences would be introduced to provide an adequate background of human values and national unity; and 2) voluntary agencies would be encouraged to impart moral and religious instruction. The Party is in favour of: 1) raising the quality of education in primary schools which should be the direct responsibility of State Governments; 2) raising the socio-economic status of teachers; 3) rejection of measures like nationalization of textbooks; 4) vindication of the Fundamental Rights of citizens to educate their children according to their choice in an atmosphere untrammelled by official directives; and 5) autonomy of universities and other educational institutions; 6) making people science minded and technologically oriented.

PROGRAMMED LEARNING

- 774 **DEWAN S S, KULKARNI S S: Use of programmed learning procedures to improve televised instruction.** Indian Educational

Review 1967, 2(1), 73-9. 10 ref.

A study with a sample of class X students of 3 Delhi schools demonstrated that techniques of overt response and immediate confirmation (implied in programmed learning) applied to televised instruction might yield better results. In each school, students were divided into three groups. Two groups (designated as treatment groups) received the new type of TV lesson while the third, the control group, observed the conventional TV lesson. After the experiment, a short-answer type test was given to measure learning and after 7 days the test was repeated to measure the retention of learning. On the immediate post-test in all the 3 schools, the treatment groups yielded significantly higher scores. Similarly, on the retention test, the scores yielded by the treatment groups were consistently higher.

- 775 VAIDYA N: Programmed learning. Educational Review 1966, 72(11), 239-40, 2 ref.

Various controversies over the efficiency of programmed techniques have been discussed. It has been stressed that the objectives of traditional teaching may also be achieved by programmed instruction, which is the first step towards self-education.

PUBLIC SCHOOLS

- 776 CHAGLA M C: Education for the elite. (In his Education and the nation. Bombay, Allied publishers, 1966. 33-8).

Public schools are necessary for imparting education of high quality to talented pupils irrespective of social and economic status, to create intellectual leadership of tomorrow. Large number of scholarships should be available in order to provide equal opportunities to the pupils of all strata of society to derive benefit from public schools. The concept of intellectual elite is not contradictory to democratic principles. Public schools, instead of encouraging snobbery, should emphasize discipline, respect for individuals and spirit of tolerance.

READING

- 777 BHATNAGAR B N: Understanding the reading difficulties of class VI students in Hindi with special reference to diagnostic and remedial work with under-achievers. Rajasthan Board Journal of Education 1967, 3(2), 24-9.

A study with 88 boys and girls revealed that slow reading

speed was due to unfamiliarity with the topic, absent-mindedness, occurrence of unknown words and lack of experiential background. Tendency to ignore unknown words, unsuitable reading techniques and emotional instability or physical handicap were generally the causes of poor purposefulness. The following measures are recommended: 1) taking up of reading at the primary stage and providing opportunities for wide reading; 2) including diagnostic testing and remedial work in teacher education curriculum to help the under-achievers; 3) introducing pre-reading questions and post-reading discussion in teaching; 4) shifting emphasis gradually from loud reading to silent reading. Personal relationship is necessary for remedial work. Motivation should be considered as an important factor.

- 778 CHACKO C: Review of research in reading readiness. Indian Educational Review 1967, 2(1), 1-25. 85 ref.

Reviews the literature on major researches up to 1964 under the following heads: 1) physiological readiness; 2) intellectual readiness; 3) language readiness; 4) emotional readiness; 5) social readiness; and 6) experiential readiness. An increasing recognition of the need to apply the readiness concept at all levels is noticeable. Studies on reading have shown that it is not a simple mechanical skill but a complex activity involving a higher mental process and calling for various abilities. The abilities differ according to the type and purpose of the reading. Therefore, constant evaluation of the pupils readiness for the kind of reading expected of them and the development of the skills needed should be an important part of the programme. Since most of the studies were done on pupils in the first grade, the results contributed only to readiness for reading at the beginning stage.

- 779 RAWAT D S: Studies and tests in reading. Indian Educational Review 1967, 2(1), 116-24. 18 ref.

A survey has been made of the studies conducted in India and the U.S.A. on three areas related to reading viz. vocabulary, reading interest and testing of reading ability, while reviewing the publication: "Bhagatwala J A: Standardization of silent reading tests in Gujarati for secondary schools Baroda, M.S. University, 1966.6, 189p." Bhagatwala aimed at providing scales to measure three factors of reading ability (viz. speed, work-meaning and comprehension) of individual pupils studying in classes VIII to XI. Final tests were administered to 5,136 subjects. Test-retest, parallel forms, and split-half methods were used to determine the reliability of the 15 tests devised. In most of the cases the reliability coefficient was between .50 to .60. The validity was determined using three different techniques: 1) correlating

standard scores of the total of 4 subjects obtained by the testees with their total score in the final form of the reading test; 2) determining the correlation between the marks obtained by the testees and the ratings of experts for their ability in learning. The validity coefficients ranged from .30 to .72; 3) adopting the analytic procedure of establishing validity.

780

VARADAN V: Newspaper reading habits and interests of adolescents. Indian Education 1966, 5(10), 3-26.

The study based on the replies given by 291 high school students (172 boys and 119 girls) revealed the following: 1) only 2.75% of the adolescents above 12 years do not read newspapers; 2) excessive school work prevents specially girls from reading; 3) boys read more number of papers than girls; 4) 73.3% read regularly; 5) subscription is the main source by which pupils get papers; 6) item preferences between boys and girls are similar; 7) differences in taste-preferences were noticed between rural boys and girls, urban boys and girls, and rural and urban girls. It has been suggested that more effort should be made in educational institutions to encourage newspaper reading habits of students by providing necessary facilities.

STANDARD OF EDUCATION

781

LULLA B P: Constructing an index for measuring rise or fall in educational standard. Indian Education 1966-67, 6(1-2), 5-11.

An index can be constructed at a specific level and in a specific subject or institution only. It involves three major steps; 1) fixing terms of reference or determinants; 2) determining basal factors; 3) calculating index or indexes for specific standards in education. The terms of reference are the determinants expressed in the form of objectives to be achieved or improvements to be expected in a specific area. Such expectations may be partly quantitative and partly qualitative. As in social sciences, the concept 'base' has to be developed in educational measurement with regard to the rise or fall in standards at a specific level with the help of acceptable basal factors. Some concepts suggested are: 1) base time; 2) base group; 3) base programme; 4) base performance; 5) base product. After fixing the determinants and assuming the basal factors, the percentage-increase or decrease on the given determinants is calculated. A tentative example for calculation of standards of a subject in a particular year has been given.

782

MANGLA L R: Falling standards in education - causes and remedies. Progress of Education 1967, 41(7), 250-3, 258.

The frequent student strikes resulting in loss of working hours are responsible for lowering educational standards. Long hours of practical work, internal assessment system and the dissertation work required in partial fulfilment of the degree, fully engage the students pursuing professional courses. As such, they generally do not participate in strikes and demonstrations. Students of arts faculty, on the other hand, have more free time, as they depend on guide books for passing examinations. Their energy is not properly channelized. Suggestions for improvement of the situation are: introduction of internal assessment, viva-voce test, and essay papers in each subject at graduate level examination, and dissertation at the postgraduate level. Such steps would inculcate the habit of reading standard books and journals and frequent visits to the library, and keep them busy throughout the session.

STUDENT INDISCIPLINE

783

CHAGLA M C: Statement on student unrest (laid on the table of Lok Sabha on 7 November 1966) (In Institute of Constitutional and Parliamentary Studies, New Delhi:) Student unrest - problems and perspectives. New Delhi, the Institute, 1966. 98-102)

The causes of unrest are: 1) overcrowding in educational institutions at all levels without corresponding increase in the facilities for teaching and learning, and physical amenities for student; 2) uncertain future facing educated young men, particularly those receiving education in non-technical subjects and humanities; 3) disintegration of traditional ways of life; 4) impact of worldwide trend of restlessness amongst students; 5) political and non-academic factors; 6) failure on the part of some Vice-Chancellors to inspire the respect and confidence of the academic community. The remedies suggested are: 1) non-interference of political parties in student affairs; 2) maintaining the highest integrity in matters of appointments and admissions to universities and educational institutions; 3) ensuring university autonomy; 4) prompt and sympathetic action in removing grievances of students; 4) acceptance, by the students, of the decisions of the educational authorities regarding academic matters. The recommendations of the Education Commission (1964-66) regarding student services and conference of vice-chancellors (16-18 October 1966) on student unrest would also help solving the problem.

784

CHISHTI A: Role of language. Seminar 1966, No.88 (Dec-

ember), 18-20.

The most important cause of student indiscipline is the frustration experienced by students during the transition from the secondary stage with a regional language as the medium of instruction to the university stage, where English is the medium. In some universities where undergraduate students can take instruction in either of these languages, the standard of education had deteriorated due to inadequate instructional material in regional languages. Teachers also lack sufficient command on language as an instrument of teaching. In appointments to both private and public sector jobs, the candidate's capability of expressing in English is being preferred. Thus students educated through regional languages finding an uncertain future before them indulge in violent acts. A better planned transformation to regional languages at all stages of education has been urged.

785 CHITRA M N: Case studies. Seminar 1966, No.88 (December), 34-9.

Various academic and non-academic issues contribute to student strikes. The problem should be viewed against the total social context including the economic and political. Sociologists and social anthropologists should undertake studies in this matter. Strikes have their roots in the educational system which in turn is influenced by forces in the wider society. In this context two strikes have been examined: 1) the Mysore University strike consequent on the increase in tuition fees; and 2) the Polytechnic Institute strike (Gwalior, M.P) sparked off by a clash between students and police on a minor issue. An analysis of Mysore University strike revealed the following causes: 1) poor economic conditions; 2) increase in number of students; 3) ineffective teaching; 4) formal relationship between teachers and students; 5) caste consideration in academic life; 6) low salary scales of teachers; 7) glaring disparity in salary scales of government employees and students' fees between the old and new Mysore areas. Political and social ambitions encourage students to join college unions and take active part in student strikes.

786 Conference of Vice-Chancellors - main recommendations. (In Institute of Constitutional and Parliamentary Studies, New Delhi. Student unrest - problems and perspectives. New Delhi, the Institute, 1966. 113-16.

The conference held in New Delhi during 16-18 October 1966 under the Chairmanship of Dr. D.S. Kothari, Chairman, University Grants Commission to consider the problem of student unrest, made the following recommendations for immediate implementation: 1) appointment of deans of student welfare in

universities and colleges; 2) provision for counselling and guidance; 3) strengthening of information and employment bureaux and institution of effective orientation programmes; 4) expansion of library facilities; 5) provision for physical amenities for students; 6) provision for financial aid to needy students; 7) promotion of personal contact between teachers and students; 8) strengthening of proctorial arrangements of the university with the participation of students also in the maintenance of peaceful conditions on the campus; 9) setting up of consultative machinery for the expeditious solution of problems of students. Other recommendations are: 1) associating student representatives in discussions relating to student welfare, discipline and related matters; 2) promoting cordial relations between the police and the academic community; 3) prohibiting the entry of police into the university campus without the permission of the educational authorities. Political parties have been requested to desist from using students for their own political ends and objectives.

- 787 Cure for unrest (Editorial). Times of India 21 October 1966, p.8, Col.1. 440 words.

The consensus reached at the vice-chancellors' conference does not offer immediate solution for the student unrest problem, but suggests practical ways for restoring the authority of vice-chancellors. Encroachment of State Governments and politicians upon the university autonomy should stop forthwith. Central Government's capacity to ensure this is doubtful, but it can adequately finance student welfare schemes for checking unrest.

- 788 GAJENDRAGADKAR P B: Student unrest - the law and order aspect (Extracts from convocation address, Marathwada University). Times of India, 21 October 1966, p.8, Cols.3-4, p.9, Col.6. 920 words.

The problem should be handled with imagination, tact and sympathy. The immediate need is to establish a free and frank communication between students and university and college authorities.

- 789 GUPTA R K: Students' estate. Economic and Political Weekly 1966, 1(17), 705-6.

Many students being eligible voters, there should be no objection to individual or collective participation in politics. Students all over the world behave more or less like their elders. The emergence of students' estate is thus an inevitable consequence of the formation of similar

estates amongst the elders practising various trades. This collective body of students again replicate the affairs of the elders collectively. The root of student indiscipline can thus be traced to the behaviour of elders in the political and academic fields. Many of the unpleasant traits in students reflect the conduct of teachers. Unbalanced growth of schools and colleges and the maladjustment of rural students to the urban educational set up also contribute to the malady. Rehabilitating teachers seems to be the only remedy, since it is not possible to bring any reform in other elders. Pending the implementation of a long term programme, the violation of law by students should be treated as such and action taken accordingly.

790

INSTITUTE OF CONSTITUTIONAL AND PARLIAMENTARY STUDIES,
NEW DELHI: Student unrest - problems and perspectives.
New Delhi, the Institute, 1966. 120p.

The publication consists of four parts: 1) a background note on the problem of student unrest - an analysis of causes and cures; 2) symposium presenting 11 papers by educationists and statesmen; 3) excerpts from the editorial comments in leading newspapers, and statements of political leaders, educationists and students; 4) appendices containing a) statement on student unrest by Mr. M.C. Chagla, Union Minister of Education, laid on the table of the Lok Sabha on 7 November 1967; b) excerpts from the report of the Education Commission on student services; c) main recommendations of the Conference of Vice-Chancellors (16-18 October 1966); d) Rajya Sabha debate on student unrest (8-9 November 1966).

791

JAGDEV MOHAN: Tackling disciplinary problems in secondary schools. Indian Education 1966-67, 6(1-2), 29-36.

In the changed social set-up the concept of discipline has undergone changes and therefore technique of handling disciplinary problems needs drastic change. Disciplinary procedures should no longer be punitive. Discipline cannot be inculcated merely by enforcing rules and regulations on students. Instead of enforcing discipline by any outside agency, students should be entrusted with this responsibility. Encouraging students to participate in extra-curricular activities has been suggested for developing a sense of self-discipline in them. Ways and means of handling three common delinquencies among the school students viz., 1) truancy; 2) stealing of books; and 3) writing on school walls during examinations have been discussed.

792

JOHN V V: Student unrest - substitutes for courage?
Times of India 15 October 1966, p.6, cols.3-4, p.8, col.3.

1500 words. (also In Institute of Constitutional and Parliamentary Studies, New Delhi. Students unrest - problems and perspectives. New Delhi, the Institute, 1966. 61-5).

Students hardly clamour for a challenging curriculum or better educational facilities and higher standard, but agitate on some triviality. Counselling and other welfare activities are not substitutes for learning. The urgent need is for teachers, whose learning animates and enlivens the classroom. Enquiries into student violence should be comprehensive. In public life there is no substitute for courage.

- 793 JOSHI A C: On student unrest. University News 1967, 5(2), 3-5; 5(3), 3-4. (also In Institute of Constitutional and Parliamentary Studies, New Delhi. Student unrest - problems and perspectives. New Delhi, the Institute, 1966.37-47).

The process of transformation of an agricultural feudal society into a modern industrial community and the consequent revolution of rising expectations in a developing society may be the causative factor. Glaring gaps in the academic structure of the community, imbalance between manpower requirements and outturn of educated personnel causing large-scale unemployment, infringement of university autonomy, the gap between precept and action of leaders are some other factors. Remedial measures suggested are: 1) implementing the proposals for the improvement of students welfare, suggested by various committees and commissions; 2) bridging the gap between students and authorities; 3) setting up a joint teacher-student council to look into the students' grievances. The long-term measures include : 1) arresting the deteriorating standards of instruction and improving the whole apparatus of higher education; 2) minimizing elections in universities and accordingly changing university charters; 3) setting up Boards of Management for university administration with long term membership similar to those in Institutes of Technology; and 4) changing the methods of instruction, evaluation etc. in accordance with the available resources.

- 794 KABAD B K R: Upsurge of discontent. Times of India 20 October 1966, p.8, Cols.3-4, p.9, Col.5. 1500 words.

There are contradictions in the analysis of the causes of student discontent and also in the remedies suggested. Any outbreak of violence is a threat to law and order and should be treated as such. It is not a question of creating conditions for lessening or removing temptations for breaking the law. Men in public life should set examples of respecting law and authority. Parents' associations can handle the problem better. Because of public apathy and indifference

the matter is left entirely in the hands of politicians.

- 795 KIRPAL P: Student unrest - a programme of action. *Amrita Bazar Patrika*, Republic Day Supplement, 26 January 1967, p.III, cols.3-6, p.IV, cols.4-5. 2535 words.

The weakness in the system of higher education and the general social disorganisation are the main causes. The suggested long term remedial measures are: 1) strengthening the quality of higher education; 2) linking higher education to manpower needs; and 3) introducing compulsory national service. The short term programmes are: 1) provision for large textbook libraries; 2) establishment of joint committees of students and teachers; 3) appointment of right type of vice-chancellors; 4) clean, impartial and efficient administration in universities as well as in the government; 5) firm enforcement of law and order; and 6) establishment of close and cordial relationship between students, teachers and police. Teachers, parents, political leaders and social organisations should give proper lead and guidance to students.

- 796 Long neglect (Editorial). *Times of India* 12 October 1966, p.8, Cols.1-2. 622 words.

The maintenance of law and order is only a part of the student unrest problem. More important is the removal of sources of discontent, frustration and cynicism among the student community. Concerted action by parents to discipline their wards, a machinery to look into the student grievances, selective admission, laying down exacting standards for the appointment of vice-chancellors, are some of the remedial measures.

- 797 MEHTA C S: Student indiscipline. *Educational Forum* 1967, 12(1), 28-31.

There are several instances of student indiscipline encouraged by teachers. Lowering the curricular requirements, easier examinations and the discharge of teachers have been some of the recent demands of students. The attitude of the university authorities and of the government to yield to the unjust demands of students with a view to avoid illegal activities has been criticized. Proper organisation and functioning of students unions has been urged.

- 798 MENON V K N: First step - a code of conduct for students. (In *Institute of Constitutional and Parliamentary Studies*, New Delhi: Student unrest - problems and perspectives. New Delhi, the Institute, 1966. 66-8).

Suggests drawing up a code jointly by teachers and students covering questions of their conduct both inside and outside the institution. The code would cover questions like strikes against university authorities, picketing of classes or residences of authorities, the demand for postponement of examinations, as also ways of protest against the government on vital issues, measures to ensure the peaceful conduct of processions, agreement to use only the methods of persuasion to close business premises and institutions during strikes, and renunciation of violence. The joint consultative machinery suggested for solving student grievances, may undertake the drawing up of the code. The suggestion of the police authorities to promote social contact between police and students seems to be unwise.

799 NARAYAN J P: Educational deficiencies. Educational Forum 1967, 12(1), 9-15.

Although some of the remedies for student unrest are beyond the educational system, two major steps can be taken by the educational authorities: 1) removing the educational deficiencies that contribute to it; and 2) setting up an adequate consultative and administrative machinery to prevent incidents. The students' unions should be considered as part of the institution and as an aid to its administration. Students shall have the right to participate in politics but the functions of students' unions and of student fronts of political parties must be distinct and separate. The widened gap between the generations, all round fall in the standards of public conduct, deterioration of socio-economic conditions are some of the deeper causes. The Congress Party, is largely responsible for the decline in standards of public behaviour. Decline of religion is another major cause. The need for student participation in national construction has been stressed.

800 Police chiefs' proposals to meet student strikes. Hindu 17 October 1966, p.1, Cols.3-5. 396 words.

The recommendations are: 1) promoting social contact between students and police; 2) informing the police in case the educational authorities apprehend any trouble; and 3) swift and effective action to curb agitations.

801 RAJ K N: Regional contrasts. Seminar 1966, No.88 (December), 40-1.

General economic and political situation in the country and unbalanced development of university education contribute to student unrest and indiscipline. Proliferation of universities and indiscriminate enrolment of students for

higher education in some States, particularly U.P., Bihar, M.P. and West Bengal, contribute to the persistent and frequent student disturbances in those regions. Significantly in these States the growth of university education is somewhat out of proportion to literacy in general as compared to the States having higher literacy percentage but lower university enrolment. The latter States are largely free from troubles. The regional distribution of universities also conforms to this pattern. The four Southern States which accounted for over 30% of the country's total literate population had between them only about 16% of the total number of universities in 1961. On the other hand the States of U.P., Bihar, M.P. and West Bengal having the same percentage of literate population, accounted for 50% of the total number of universities.

802

RAJAMANNAR P V: Why are our students restless. Hindu, Republic Day Supplement. 26 January 1967. pI, col.5, p.II, cols. 2-4. 1250 words.

Students endowed with intelligence cannot resist subscribing to one or the other of the conflicting ideologies - social, economic and political-that teem the world today. Unrest is due to their active participation in movements opposed to the existing political, economic and social patterns. Active participation in politics is a natural corollary to student participation in the freedom movement. Another cause is the paucity of scholarly teachers who could command the respect and reverence of students and inspire them. While the Indian Constitution specifies people's rights of different kinds, it does not emphasize their corresponding duties and obligations. This has resulted in a general lack of sense of responsibility in every sphere of society.

803

RAO V K R V: Problems of student unrest - causes and remedy. Tribune 12 October 1966, p.4, cols.3-6. 2250 words.

Student indiscipline is a cultural, socio-economic and educational problem which falls for an objective and scientific study to find the proper remedies. The cause of unrest include: 1) the sharp break in the medium of instruction between the secondary and collegiate stages and consequent difficulties in understanding the subjects of study; 2) fear of unemployment; 3) large increase in number of students altering the complexion of the student body and making personal contact between the teacher and the taught increasingly difficult; 4) growing disillusionment of the youth with the older generation; and 5) the neglect of non-student youth belonging to the age group of college students but remaining idle. Politicians have been requested to prevent students from participating in party politics. Students should

adopt constitutional methods to get their grievances redressed. Formation of a National Commission headed by a sociologist with representatives of teachers, administrators and students, has been suggested.

- 804 RUHELA S P: Student unrest in India - a sociological approach. Progress of Education 1966-67, 41(5), 174-8; 41(6), 216-220. 39 ref.

The factors responsible for unrest should be studied in the context of social and economic conditions. Economic miseries have led to dissatisfaction. Social malaise has developed a sense of frustration among the people. The social malaise thus inherited by pupils, leads to indiscipline and violence. Student unrest is not a problem of law and order. The academicians and educational administrators should attempt to improve the situation through scientific enquiry. Sociological research studies should therefore be undertaken by universities and educational institutions, on topics relevant to the problem. The whole gamut of social malaise, both within and outside the academies should be covered by these studies. An exhaustive list of problems has been given.

- 805 SRINIVASA IYENGAR K R: Student unrest. Swarajya 1967, Annual Number 205-8.

Although student involvement in political agitations is not new in India, it is not clear whether they form the advance guards of political movement or are merely being used by politicians. Student consciousness of rights and shortcomings in social life, general indiscipline all over the country, the polarization between the young and the old, between the underprivileged and affluent, and between opposition and ruling parties, contribute to the problem. Some guidelines suggested are: 1) proper orientation of freshers to new surroundings; 2) closer contacts between teachers and students outside the classes; 3) student counselling; 4) improvement of physical conditions in colleges and universities; 5) modernization of syllabus; and 6) simplification and rationalization of the examination system.

- 806 Students and the police (Editorial). Hindu 13 October 1966. p.6, col.1. 618 words.

Adolescent delinquency cannot claim any privileged immunity. Instead of indulging in unfair criticism of police, the public and the authorities should exercise a restraining influence on students and keep political parties away from them.

- 807 Student lawlessness (Editorial). Hindu 8 October 1966, p.6, Cols.1-2. 558 words.

Closer student-teacher link, sympathetic consideration of grievances, integration of student community into the life of the university, and providing motivation to study subjects which would lead to useful careers, are necessary to wean away the students from the influences of political parties. It is significant that students of vocational and technical courses, who have a clear goal in view, are not involved in agitations.

- 808 Values in education (Editorial). Hindu 4 October 1966, p.6, Cols.1-2. 531 words.

The present violence and lawlessness is due to the failure of the educational system to inculcate a sense of right values in the minds of students. The needs are: 1) an immediate agreement among political parties not to exploit students for political purposes; 2) creating in students a respect for the Indian cultural heritage.

- 809 Vice-chancellors' conference (Editorial). Educational India 1966, 33(5), 164-6.

Except the recommendations for the creation of consultative machinery and prohibition of the entry of police in the university campus, there is nothing new in the recommendations. Since the student violence is a law and order problem which should be dealt with by the Home Ministry, such conferences serve no purpose.

STUDENT UNION

- 810 SACHITANAND N N: What is the alternative to students' union? Hindustan Times 19 February 1967, p.9, cols.7-8. 870 words.

The basic functions and qualities of a student representatives' body are: 1) capability of logically discussing issues with the authorities; 2) shouldering responsibility of handling students' affairs and maintaining discipline; 3) conducting various activities in the interest of students; 4) cooperating with authorities in managing the institution; 5) initiating moves for more rapport between staff and students and also suggesting improved teaching methods. Most of the existing students' unions do not fulfil these expectations, but contribute to student indiscipline. The suggested alternative is the formation of a students' council with members selected by the class teachers. This would exclude undesirable elements from the union and keep it

free from political influence. There should be teacher coordinator in an advisory and liaison capacity. The college dean should take active interest in the council.

TEACHER EDUCATION

- 811 ABRAHAM H J: Suggestions for a syllabus on education for international understanding at the teacher-training level. *Journal of Education, Karaikudi* 1966-67, 10(2), 1-14.

Following principles have been suggested: 1) the syllabus should enrich the general education, induce creative work, self-confidence and competence to enable students to proceed on their own when they become teachers; 2) activity methods and projects should be used for teaching; 3) provision for specialization in the course and its correlation with a chosen field of study; 4) syllabus should not be confined to particular textbooks. Students should be encouraged to collect material from various sources. The syllabus could be divided into five units: 1) orientation and planning - to present the syllabus as a whole, the work, and to provide some information about the other units; 2) study of other countries - to give some insight into the ways of life and sentiments and aspirations of the people of a different country; 3) human rights - to develop a feeling of responsibility and to stimulate knowledge and thought about human rights; 4) the United Nations - to strengthen the sense of fellow-feeling; 5) culminating activities. An outline of the units has been given.

- 812 BHATTACHARYA S: Teacher education and its new role. *Indian Education* 1967, 6(4), 8-12.

The drawbacks of the present system of teacher education have been discussed. Suggestions offered for improvement are: 1) thorough revision of the curriculum to cover a wide range of subjects like Indian sociology, social psychology and rudiments of social sciences; 2) introduction of a two-year course; 3) making the course a residential one in order to stimulate a corporate life among teacher trainees; 4) introduction of co-curricular activities and community work as the major part of the first year programme along with fundamental studies of sociology, social sciences, etc.; 5) encouragement to undertake social work during and after training; 6) introduction of internal evaluation system; 7) giving due credit to skills in arts and crafts, physical activities and leadership. The whole programme should be geared to national interests and not confined to academic or professional interests. The role of teacher should be that of a leader, organizer, thinker and coordinator.

- 813 CHAURASIA G: Correspondence courses for Bachelor of Education. (In his New era ~~in~~ teacher education, Delhi Sterling publishers, 1967. 56-68).

The important features of the proposed scheme of summer school cum correspondence course of 14 months' duration are: 1) courses and scheme of examination: content-cum methods (2 subjects), workshop in teaching, psychological, philosophical and sociological foundations, supervised teaching and assignments (2 subjects). The total marks would be 900 (internal 500, external 400); 2) first summer school (8 weeks of 36 hours each): content cum methods (2 subjects), workshop in teaching, supervised library work, games and recreation; 3) second summer school (same duration): in addition to above, philosophical and sociological and psychological foundations, and tutorials; 4) ten months between the two summer schools: supervised teaching, and practical assignments like critical study of the syllabus in two school subjects, study of examination system in operation in the school, book review, preparation of teaching aids, practical activities relating to educational psychology.

- 814 CHAURASIA G: Education of secondary teachers. (In his New era in teacher education. Delhi, Sterling publishers, 1967, 22-38).

Following recommendations of the Baroda Study Group on the Education of Secondary Teachers in India (1964), set up jointly by the NCERT and the National Association of Teacher Educators and the follow up work have been discussed: 1) preparation of master plan for teacher education for each State for the Fourth Plan period. Master plans for Mysore and Orissa had already been prepared; 2) formation of National and State Councils for Teacher Education for planning, coordinating and maintaining proper standards; 3) arrangement for in-service education for teachers, teacher educators and educational administrators by providing extension centres to training colleges during the Fourth Plan and establishing Staff College of Education; 4) expansion of four-year B.Ed. Courses; 5) introduction of correspondence courses for teachers.

- 815 CHAURASIA G: In-service education of teachers. (In his New era in teacher education. Delhi, Sterling publishers, 1967. 80-97).

The development of extension services initiated in India in 1955 for the promotion of in-service teacher education is described. Although the extension work has made much progress, further intensive work for the consolidation of the gains

and demonstrating its impact on school practices are necessary. Development of new techniques and effective use of earlier procedures of extension work should be made. Following techniques need trial and investigation: 1) workshops and seminars; 2) programme of seminar reading as introduced by the Directorate of Extension Programmes for Secondary Education (NCERT); 3) publication of pamphlets relevant to the work of teachers; 4) science clubs; 5) correspondence courses; 6) staff councils and study circles.

816

CHAURASIA G: New trends in teacher education. (In his New era in teacher education. Delhi, Sterling publishers, 1967. 1-21).

The recommendations of the following bodies regarding teacher education have been discussed: 1) University Education Commission (1949); 2) Secondary Education Commission (1953); 3) Assessment Committee on Basic Education (1956); 4) National Workshop of Post-Graduate Basic Training Colleges (1960); 5) First National Seminar on the Education of Primary Teachers. The direct and indirect impact of basic education on teacher education at primary and secondary levels has been pointed out.

817

CHAURASIA G: Preparation of teacher educators. (In his New era in teacher education. Delhi, Sterling publishers, 1967. 98-110).

Instead of the conventional one-year B.Ed. and one-year M.Ed. courses introduction of a two-year M.Ed. course has been proposed. Only first or second class M.A. and M.Sc. degree holders should be admitted. Teaching experience should not be a pre-requisite for admission. As an example, an outline of a two-year Master of Science Education course has been given. Some of the features of the course are: 1) allotment of time: (a) 50% for studying content and methodology of science; (b) 25% for compulsory core programme consisting of two papers viz. problems of Indian education (selected problems to be considered in a total perspective), and techniques of educational research; (c) 25% for one or two optionals from topics like curriculum development, guidance and counselling examination, test and measurement; 2) dissertation on significant problem in science or professional education or science education; 3) term paper and practical assignments in addition to continuous internal assessment through periodical tests; 4) 4-6 weeks' internship every year; 5) emphasis on self-study and providing opportunities for personal contacts with outstanding experts and scholars.

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CHAURASIA G: Student teaching. (In his New era ~~in~~ teacher education. Delhi, Sterling publishers, 1967. 69-79).

The improved student teaching programme as introduced in the Regional Colleges of Education and its objectives have been discussed. The success of the programme depends on the cooperating schools and the college supervisors. Various measures including financial incentives to cooperating schools had been planned to ensure their active participation. The college supervisor should coordinate the activities of the student teacher with the cooperating teacher and other personnel in the cooperating schools. Further integration of theory and practice can be made by introducing a post B.Ed student teaching programme, since the one-year B.Ed. course is inadequate for providing practical knowledge.

819

DESAI D M: Correspondence course in teacher education. Maharashtra Educational Journal 1967, 15(4), 105-7.

The main criticisms of the scheme of Union Ministry of Education for training secondary teachers are: 1) teaching being a skill cannot be imparted through correspondence. The success of teacher education programme depends largely on personal contact with teachers, group work and community living; 2) the responsibility of training would vest in the inadequately equipped secondary school teachers of the cooperating schools; 3) the course being free, the enrolment in training colleges would be adversely affected. The correspondence course has been introduced as an emergency measure to meet the inadequacy of trained teachers. The new scheme provides for training in practice-teaching through internship in cooperating schools. The cooperating teachers would also be adequately oriented in their assignment. Thus the development of skills is not neglected.

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DORAIKANNOO MUDALIAR P: Kothai Commission on teacher education (Editorial). Journal of Education, Karaikudi, 1966-67, 10(2), i-v.

The proposed extension of the academic year from 180 to 234 days would leave hardly any time for the teacher and the trainees to prepare for the class. A reorientation in the school level subjects for a graduate teacher trainee would be superfluous. Correspondence course for working teachers would be a poor substitute for regular course as it cannot provide full professional competence to teachers. The four-year programme of teacher education which combines teacher preparation leading to a degree may not attract the requisite number of students in the absence of future prospects. Practice teaching deserves great attention and there should be model schools manned by expert teachers.

Some effective teaching methods in teacher education colleges are: guidance to self-study; compulsory study of at least one or two books for each subjects; linking the theoretical knowledge with the experience in practical situation.

- 821 JAMBULINGAM A P: Teacher training in technical education. Hindu 2 January 1967, p.5, cols.2-4. 1410 words.

The polytechnic teachers should possess a good academic background, specialized technical education, industrial experience and pedagogical training. For the existing teaching staff two programmes should be arranged: 1) for graduates - one year of industrial training and six months of pedagogical training; 2) for diploma holders - in addition to above, one year of content training to raise their standard to that of graduate level. The pedagogical training should include courses in psychology, teaching practice and also discussions and seminars. The setting up of four regional technical teachers' training institutes by the Government of India has been commended.

- 822 GUPTA L D: Standards in education. Punjab Journal of Education 1967, 3(4), 25-31.

Improvement in the quality and economic status of teachers is a pre-requisite for raising the standard of primary education. Following suggestions have been made for the renovation of teacher education programme for improving the quality of teachers: 1) students possessing good academic qualification and a liking for the profession should be selected as teacher trainees; 2) teacher education colleges should be located in rural areas where usually the prospective teachers have to work; 3) training institutes should be subjected to periodical inspection; 4) practice teaching should form an essential part of the programme; 5) a State Board of Education should be entrusted with the entire programme for primary teachers.

- 823 KAKKAR S B: Worries of teacher trainees. Punjab Journal of Education 1967, 6(4), 21-7.

A survey of the problems of teacher trainees was undertaken in order to devise ways and means to eliminate or reduce the impact of the problems causing worries. A sample of 40 female and 30 male B.Ed. students of Jullunder was asked to indicate 5 problems encountered by them. The problem, classified under 10 categories, and marked in order of frequency of mention by the students, are: 1) academic; 2) personality and emotional; 3) economic; 4) aspirations; 5) home and family; 6) health; 7) philosophic and abstract; 8) occu-

pational; 9) social; 10) marriage. Most of the academic problems can be solved by their teachers. Personality and emotional problems can be partly overcome by organizing co-curricular activities and rendering individual guidance. As regards aspirations, while encouragement and concrete help in achieving the attainable aspirations are necessary, modification of unattainable ambitions is desirable.

- 824 KAPUR J N: Urgent need for teachers' training programme in mathematics. (In his Essays in mathematics education. Delhi, Ramchand & Co., 1966. 75-9).

A scheme for a two-year post-M.A. course, under the auspices of the UGC, to train the teachers in mathematics, has been proposed. The course should be first started in a suitable university centre with 50 students and the number of centres may be increased eventually. The trainees should be considered to be on probation, to be absorbed in universities after satisfactory completion of the course. The teaching staff should be requisitioned from existing universities and research institutes. Facilities should be extended to trainees intending to do research work. However, emphasis should be more on advanced training than on research. The approximate annual expenditure for the maintenance of one centre has been worked out. The training centre should be independent of the university under a whole-time director.

- 825 MAHARASHTRA, EDUCATION DEPARTMENT: Report of the Committee on Teacher Education in Maharashtra State. Bombay, the Department, (1966). 258p. 29 ref.

The report is in 4 parts. Part one describes the total perspective against which the problems of teacher-supply and teacher-education should be viewed. In the second part existing conditions and problems have been presented. The third part includes a statement of the new trends and patterns in teacher-education, the conclusions together with the recommendations based on them, and the abstract of recommendations. The statistical statements, schedules, references, indicative curricula and full text of the Government Resolution appointing the Committee, are included in the fourth part which also consists appendices. Recommendations have been grouped as under: 1) traditionalism in education; 2) content and method of school education; 3) composition of the teaching profession; 4) administration and supervision of education; 5) organization and supervision of teacher education; 6) physical and material conditions of teachers' colleges; 7) curricula for teacher education; 8) techniques of teacher education; 9) quality of teacher educators; 10) duration of teacher education courses; 11) opportunities for professional development; 12) planning of teacher-recruitment and teacher

education; 13) research and advanced studies in education.

- 826 MAJUMDAR H B: Scheme for correspondence-cum-summer course for elementary school teachers. Journal of the Mysore State Education Federation 1967, 20(6), 150-6, 160.

Describes the scheme drafted by the National Association of Teacher Educators for imparting professional training to untrained matriculate teachers in the age-group 30-40 with at least 5 years of teaching experience. Special cells created within the State Institutes of Education would conduct the course. A centre in each training institution should organize the summer course and supervise the field work. Provision would be made for both one-year course (with 2 summer courses) and two-year course (with 3 summer courses). Lessons prepared by experienced teachers of the training institutions would be reviewed and edited by the cells. The supervision of field work would be done by competent staff drawn from various agencies involved in the elementary education. The external examinations would be the same as for the regular students. Internal assessment should be on the basis of correspondence assignments, performance during summer courses, and efficiency in practice teaching.

- 827 MATHUR V S: Vitalising teacher education. Punjab Journal of Education 1966, 3(3), 40-5.

While experiments with four-year integrated teacher education courses should continue, the one-year courses should be revitalized by: 1) increasing the number of working days and working hours; 2) providing proper equipment and staff to training institutions. The future of teacher education to a large extent depends on individual training colleges and on the vision and initiative of their staff. The experiments of the State College of Education, Patiala include: 1) orientation course before the beginning of the session; 2) compulsory stay in hostels for cultivating the habit of cooperative living; 3) internship in teaching; 4) seminars and discussions; 5) a system of oral evaluation as a part of internal assessment; 6) audio-visual education; 7) work camps. The Institute also plans to introduce 1) semester system; 2) subject specialization for persons with M.A. or M.Sc. degree.

- 828 MITRA A K: Bhārtbarṣe śikṣak śikṣan byāpasthā (= Teacher education system in India) (Bengali). Śikṣak 1967, 20(8), 483-6, 488. 11 ref.

Traces the development of teacher education in India in three phases: 1) 1801-1882; 2) 1882-1947; and 3) 1947-. The monitorial system introduced in schools in the late 18th

century marked the beginning of teacher training in India. In 1881-82 about 3886 teachers of primary schools received education in 106 institutions. For the training of secondary teachers there were only two institutions - one in Madras (1856) and the other in Lahore (1881). In the second phase the teacher training programme received impetus through the recommendations of Education Commission (1882) and the resolution of Government of India (11th March 1904) concerning education. Appointment of teachers without training was generally discouraged. In the third phase the concept of teacher training had undergone drastic change. With enlarged scope, the term teacher education is in vogue since independence.

- 829 PANDA S N: Sociological approach to teacher training. Indian Education 1966, 5(10), 27-31.

In a rapidly changing society teachers should possess a clear insight into the social purposes of education. A plea has, therefore, been made to incorporate in the teacher education curriculum a course on general sociology including educational sociology. Some of the topics which should be covered are: impact of home, community, population and urbanization trends etc. on education; abstract ideas like social history and national development; current scientific and technical discoveries; outstanding international problems like apartheid, nuclear armaments.

- 830 PARIKH A K M, CHATURVEDI S: Internship in education - problems and suggestions. Progress of Education 1967, 41(6), 226-30.

An appraisal has been made of the internship programme of the Regional Colleges of Education. The problems relate to: 1) selection of cooperating schools; 2) pre-internship preparation; 3) orientation for the cooperating teachers; 4) supervision; and 5) evaluation. The criteria for selection of schools are: 1) good location; 2) adequate physical facilities and equipment; 3) continued cooperation from the cooperating schools. A three-month pre-internship programme at the beginning of the academic session has been suggested. The cooperating teachers should get oriented to the teaching techniques and methods recommended by the supervisors of teacher education colleges. Supervision of practice teaching should be made by a team of method experts and a content man, while the supervision of internship programme should be vested in the cooperating teacher and the team of college supervisors. Instead of a criticism or a test lesson, the evaluation of student should be made on the basis of his performance in teaching and participation in co-curricular activities.

- 831 PONNAMBALAM P, VISVESVARAN H: Influence of socio-economic factors on the attitude of the students in Basic Training Schools toward the teaching profession. Journal of Educational Research Extension 1966, 3(2), 65-74. 5 ref.

A sample of 422 students studying in Secondary Grade Basic Training institutions in Coimbatore District was subjected to an investigation consisting of 1) the Attitude Scale covering five topical areas viz. the teaching profession, aims and objectives of basic education, community life and work, academic work and craft, and 2) a questionnaire consisting of 6 major questions seeking personal information. No significant relationship was found between the total attitude scores of trainees and their educational, occupational and economic status. The trainees secured the first rank in their attitude towards the community life and work and the last rank in their attitude towards aims and objectives of basic education.

- 832 RAMANATHAN G: Comments on the Education Commission's recommendations on teacher education. Indian Council of Basic Education Bulletin 1966, 2(5), 3-5.

The recommendations have been reviewed with alternate proposals wherever necessary: 1) setting up a Standing Committee and State Boards. Instead of the multiplication of authorities at the top level, an autonomous bureau of study and research can help improve teacher education; 2) there is no justification in proposing separate training institution for junior lecturers in colleges, while the Commission is opposed to the separation of training institutions at lower level. Moreover the training is not professional in nature but orientation to compensate for the inexperience; 3) internship programme which only means a two-month period of service in a school serves no purpose; 4) new specialized courses for headmasters, teacher-educators should be restricted to summer programmes for the time being; 5) correspondence and part-time courses for untrained primary teachers are ineffective; 6) recognition of education as an independent academic discipline would not raise its status. Education is a social service and only an improvement of the service can bring about the desired change; 7) organization of content courses as part of professional education needs more attention.

- 833 SATYANARAYANA RAO P: Science education - content and pedagogy. Educational India 1967, 33(7), 229-31.

The four-year teacher education course for the prospective science teachers organized by the Regional Colleges of Education, provides ample opportunities for intergrating

liberal arts education, professional education, specialization in one branch of science and direct experience including practice teaching. Each student receives fundamental knowledge in science through a unified course like physical and biological science during first two years. Further specialization follows thereafter. Liberal arts education covers English, regional languages, social sciences, arts and crafts and history of science. The allocation of working hours is as follows: science - 58%, pedagogy - 20.5% and liberal arts - 21.5%.

- 834 SHARMA J M: Some suggestions for improving the working of our teachers training institutes. Educational Forum 1966, 11(4), 14-19.

The suggestions offered include: 1) thorough, comprehensive and vigorous practice teaching programmes; 2) an experimental or demonstration school attached to every training institute; 3) a revised curriculum consisting of two distinct parts: teaching methodology of subject and content courses on the subject matter; 4) departments of extension services primarily concerned with in-service training programme attached to each teacher education college; 5) staff having proper qualifications coupled with adequate experience. Every college should be preferably a residential one.

TEACHING METHODS

- 835 GAHLET N S: Programme of instructional supervision in secondary schools. Rajasthan Board Journal of Education 1967, 3(2), 29-32. 2 ref.

Supervision is not the exclusive job of the headmaster but a co-operative effort in which all teachers should participate. Supervisor stimulates, guides and acts as consultant to teachers in their efforts to improve instruction. Suggestions for improving the supervisory programmes are: 1) discussion in the staff councils on instructional programmes with the active participation of all teachers; 2) classroom visitations by headmasters followed by healthy discussion, & intervisiations by teachers; 3) demonstration teaching, preferably by an outsider; 4) inservice training for teachers, study groups and seminars; 5) adequate instructional material and professional literature for the guidance of teachers; 6) special training for supervisors to make them skilled in group dynamics, personnel administration, human relations and evaluation.

- 836 GUPTA V P: Study of success in teaching. Journal of Educational Research and Extension 1967, 3(3), 81-8. 17 ref.

A sample of 40 students from Govt. Basic Training College, Dharmasala was investigated for determining the efficiency of prediction and effectiveness of teaching success that could be obtained from the variables viz., extraversion-introversion, mental persistence, and sex differences. The more introverted, more persisted on mental task and less extraverted individuals were found to be better teachers than the less introverted, less persisted on mental task and more extraverted. No significant difference was found in case of sex, though girls were the better teachers.

- 837 KRISHNA MURTY S: Experimental projects and their evaluation. Educational Review 1966, 72(11), 244-5.

The methodology of the experimental projects consists of five steps; 1) choosing the problem; 2) giving the problem an appropriate title; 3) framing objectives of the project; 4) working out details of the procedure for carrying out the project; 5) evaluating the techniques of the procedure adopted in terms of the objectives. Ten useful points for teachers desirous of carrying out experimental projects in their schools have been given.

Teaching of Subjects

- 838 AIRAN J W: Teaching of natural sciences. (In Shah A.B. Ed. Teaching of natural sciences. Bombay, Manaktalas, 1966. 27-35).

The criticism that the study of natural sciences at the primary stage would altogether replace humanities is unfounded. At the college level, science education should be provided in depth separately to those who would take up professional and pure science courses. The present deductive approach to teaching should be supplemented by an intensive inductive approach. Students should be given more intensive training in manipulation of a apparatus and in drawing their own conclusions from their findings. The laboratory work should be related to the teaching of theory and at the B.Sc. stage the experiments should be related to the actual research work being done in the college or the university. All science students should be first given a suitable course in mathematics. Training at post-graduate level should be entirely research-oriented.

- 839 BAPAT B G: Bhūgol adhyān āni adhyāpan (= Learning and teaching of geography) (Marathi). Poona, Venus prakashan, 1966. 552p.

A guide book for teachers containing 26 chapters. In dealing with the teaching of the subject, it has been stressed that the teacher should use the following methods: 1) descriptive (the journey method); 2) narrative (the story method); 3) question and answer method; 4) deductive; and 5) the project method. The work should be related with the knowledge imparted and students should be taught to draw maps and graphs and to interpret them properly.

- 840 CHAMPAKAM S, MADHAVAN S, BALASUBRAMANIAN S C: Assessment of the teaching of nutrition in elementary schools in Hyderabad. *Journal of Nutrition and Dietetics*, 1967, 4(1), 41-50.

An assessment has been made of the teaching of nutrition in classes IV to VI of 22 schools in Hyderabad, covering 55 classes, 47 teachers and 1302 children. The nutritional knowledge of teachers was found inadequate. There was a greater number of less experienced and untrained teachers in aided schools. Teaching in all schools was far from satisfactory. Very few aids were used by teachers; the few that were used were mostly in Government Schools. Though 3 to 4 weeks were available per year for teaching nutrition, the time actually utilized was much less. There was some noticeable impact of the teaching on the knowledge of children in classes IV and V.

- 841 CHAUDHARI M: Science teaching for understanding. *Vigyan Shikshak* 1967, 11(1), 1-4.

Following steps have been suggested for the improvement of science education at the school stage: 1) modernisation of curricula with stress on investigatory experiments; 2) improvement of science laboratories; 3) adoption of new evaluation methods; 4) production of quality textbooks; 5) organisation of science clubs and fairs; 6) training of science teachers; and 7) organizing seminars and conferences for teachers. The young pupils should be trained to develop a scientific attitude, to think for themselves, to experiment, and to learn by trial and error.

- 842 DATIR P D: Difficulties in teaching social studies. *Social Studies Teacher* 1967, 3(4), 6-8.

Since the study of the subject is not compulsory at the secondary stage, it is neglected in most schools. The teaching is not allotted to one teacher, but each component is taught by different teachers. As a result students do not develop a clear concept of the inter-relationship between the various components. Most of the schools do not possess

the necessary equipment. Considering the importance of the subject it should be made compulsory at the secondary stage.

- 843 DEVADASON M D: Conceptual approach in science teaching. Journal of the Mysore State Education Federation 1967, 20(6), 147-9.

The science teachers should help students to use facts in a number of ways, and assist them to correlate the isolated facts. The teachers should motivate students in the study of science and guide them to develop new concepts. They should analyse the topic and unit and having identified the concepts and skills, should find the methods of developing them. As the teaching proceeds textbooks, teachers' own experience, laboratory, audiovisual aids, and field trips should be utilized for helping the pupils see the concepts.

- 844 GAIND D N: New dimensions in the teaching of social studies in India & U.S.A. Social Studies Teacher 1966-67, 3(3), 7-10.

The teaching of social studies should be essentially subject-oriented. Even dynamic and active teaching method cannot be effective unless it is reinforced and sustained by adequate subject-matter. The teachers should be constantly alive to new developments in the subject and new evidence and interpretation which give new orientation and bias to various conventional facts. Doctrinaire method should not be adopted for teaching various topics. While teaching controversial topics, the pupils should be taught to weigh evidence dispassionately and draw their own conclusion. There should be teachers' handbooks for the guidance of teachers. The trends in social studies teaching in U.S.A. have also been discussed.

- 845 JESWANI K K: Art in education. Delhi, Atma Ram & sons, 1967. 194p.

Presents a discussion of modern methods and techniques of art teaching. The topics covered include: 1) the place of art in education; 2) stages of development in children's art; 3) teaching of art; 4) creative learning in art; 5) art in correlation with craft and other subjects; 6) art teacher; 7) lesson plan; 8) materials through the ages. About 100 methods of using art material have been described; 9) a brief history of Indian art; 10) a specimen lesson on painting. A list of journals on art and list of films on art available in various institutions and organizations in India have been given.

- 846 LOVING A D: To-day's challenge for teachers of social studies. Social Studies Teacher 1966-67, 3(3), 3-6.

Highlights the importance of anthropologists, psychologists, sociologists, economists, historians and geographers in developing international understanding. The skills of democratic group process, sociometry, research, critical analysis and critical thinking are basic tools of social studies teachers. Students' involvement in the teaching-learning process is essential and both the unit and project methods provide opportunity for active participation in problem solving techniques. A social studies teacher with a general knowledge of all social sciences, also contributes to international understanding through classroom teaching and discussions and through selection and use of audio-visual material.

- 847 PAUL R C: Teaching of chemistry. (In Shah A B, Ed. Teaching of natural sciences. Bombay, Manaktalas, 1966. 85-98).

In the lower classes teaching should be supplemented with demonstration work. At the college level the emphasis should be on the fundamental principles. First year should be devoted to the study of general chemistry. The long form of the periodic table should be adopted for teaching inorganic chemistry even in schools. The major emphasis should be on a course of physical organic chemistry. In organic chemistry, aliphatic and aromatic portions should be taught together for presenting a unified approach. Teaching of inorganic chemistry in the undergraduate stage should be based on concepts like electronegativity, bond strength, ionization potential. In practical chemistry emphasis should be shifted from qualitative to quantitative work and from macroanalysis to semi-microanalysis. The need for including instrumental analysis in the syllabi has been stressed.

- 848 RAO V S: Teaching of biology. (In Shah A B, Ed. Teaching of natural sciences. Bombay, Manaktalas, 1966. 45-60).

A study of natural sciences at the primary level is necessary to gain some knowledge about the physical and biological surroundings of man. In secondary schools stress should be on the interrelationship of various sciences. At the college level the students should know the wide range of the different natural sciences, the different branches in each subject, their interrelationships and their importance to human welfare. It is suggested that botany, zoology, chemistry, physics and mathematics should be compulsory in the first year. At the M.Sc. level the students should be acquainted with all the recent advances in the subject and cover all the branches of the subject rather than concentrating on one

branch. The students should offer a special paper instead of a dissertation. M.Sc. degree should not be awarded entirely on the basis of a thesis. Admission to the Ph.D course should be restricted to students who have taken M.Sc. degree by papers and no B.Sc. should be enrolled. A scientist should publish his papers only in standard journals.

- 849 **SAMBAMOORTHY P:** Teaching of music. Madras, Indian music publishing house, 1966. vi, 334p.

Discusses the following topics: 1) music and its place in education; 2) music teacher; 3) aims and methods of teaching; 4) utilization of the music period; 5) extra-curricular activities like organization of school choir, orchestra etc; 6) aids to teaching of music; 7) musical appreciation; 8) music as compulsory subject in training schools and colleges; 9) tests and evaluations; 10) music as a career; 11) principles of framing a syllabus and a specimen model syllabus; 12) music competition. The teaching concerns Carnatic music only.

- 850 **SOHONI G P:** What is wrong with our science teaching? Maharashtra Educational Journal 1967, 15(5), 136-9.

The main factors contributing to the lowering of standards are: 1) incompetent teachers; 2) vague objectives of teaching science; 3) unsatisfactory syllabus; 4) inadequate laboratory equipment; and 5) wrong methods of teaching. The stress is on imparting knowledge, and cultural value of science is neglected. Science clubs are not encouraged. Teachers should prepare themselves, collect material and equipment before teaching the subject and should keep in touch with current science periodicals. Government should arrange for inservice training for teachers.

- 851 **SOOD J K:** Rethinking in our biology teaching. Educational Review 1966, 72(11), 248-51, 5 ref.

Dynamic approach to biological sciences at the school level can improve the defective system of biology teaching. The psychological and empirical approach to the selection of material is necessary for this purpose. Analytical approach should be adopted in teaching children in the primary stages. Informal teaching should be in the form of stories, collecting and watching animals and insects, and preparing models. At the middle and secondary stages more laboratory work should be provided. Development of a dynamic syllabus which emphasizes the values to be imbibed from biological sciences has been urged. Importance of the study of social biology and application of molecular conceptual framework

and mathematics, particularly statistics, for the study and interpretation of biological sciences has been brought out.

852

SUDARSANAM R, VISVESVARAN H: Study of attitude of teachers of English in Secondary schools in Coimbatore towards teaching English. Journal of Educational Research and Extension 1967, 3(3), 103-11. 8 ref.

A sample of 238 teachers from 24 schools was subjected to an investigation consisting of attitude scales with 50 statements and a questionnaire. It was found that teachers with favourable attitude towards the profession and an aspiration to read English language and literature and to prepare for higher studies show a favourable attitude towards teaching English. Since in-service training has a positive influence on the attitude of teachers, steps should be taken to organize courses to cover all English teachers. In order to make the best use of the English lesson broadcasts of All India Radio, only the prescribed lessons should be broadcast.

853

WAGH D B: Teaching of mathematics. (In Shah A B, Ed. Teaching of natural sciences. Bombay, Manaktalas, 1966. 61-72).

The establishment of Centres of Advanced Studies, organising summer schools, seminars and coaching camps would improve the quality of mathematics teachers. Elaborate programmes for the in-service training of teachers should be planned. The institution of a post-M.A. degree in universities, specially to improve the subject-equipment of the teacher, has been suggested. Another attempt in this respect would be the creation of a pool of teachers, proficient in modern mathematics who could be requested to give lecture-courses to college teachers. The syllabus for the postgraduate courses should be set with a specific planned objective while the undergraduate course would be the preparatory level. A long term plan for syllabus improvement should be designed.

854

YAJNIK K S: Teaching of social studies in India. Bombay, Orient Longmans, 1966, v, 174p. 65 ref.

The 8 chapters deal with the following topics: Chapter I: Need for a change; Chapter II: meaning and scope of social studies. History, geography and civics should be fused into a synthesized whole. The emphasis should not be on any of these subjects but on social experience gained through the total programme; Chapter III: social studies teacher and his tools. The equipment suggested, however, are aids to teaching and not substitutes. Chapter IV: principles of the

social studies syllabus; Chapter V: suggesting the social studies syllabus. Four models have been suggested: syllabus in time sequence, syllabus in space relations, in terms of relationships, and in terms of topics; Chapter VI: methods of teaching social studies. Emphasis in teaching should shift from memorizing from books to learning from real life situation using community resources; Chapter VII: project way in social studies. Seven samples of projects have been given in the appendix; Chapter VIII: evaluation in social studies. Evaluation should replace examination, and this should be based on different kinds of tests and devices-oral and written tests (objective, short-answer and essay-type), case studies, sociograms and observations.

TEACHER ORGANIZATION

- 855 BAPAT B G: Effective organization of subject-teachers' associations. New Concepts 1966, 1(1), 37-9.

The formation of subject-teachers' associations as recommended by the Education Commission (1964-66) would raise the academic level of teachers, improve the quality of teaching and consequently the level of achievement of the pupil. Such associations would provide a forum for mutual exchange of experience and thus evolve some new teaching techniques. Every activity undertaken by the associations should be examined critically from the viewpoint of its contribution to education. The problems involved in forming the associations have been pointed out.

TEACHERS

- 856 JAIN K K: School as a total functional unit. Educational Forum 1966, 11(4), 30-2.

The teacher should be engaged in: 1) classroom activities, 2) total school activities; and 3) community activities. For success in classroom activities he should have thorough knowledge of the subject and be well-versed in teaching methodology. The total school activities include acquaintance with 1) the school plant; 2) the school programme; 3) service facilities; 4) school administration; 5) parent-teacher activities. Participating in community activities is necessary, because: 1) the modern school curriculum is based upon real life needs of the children; 2) some of the material and resources of learning are available in the community.

- 857 KAKKAR S B: Study of teachers' worries. Rajasthan Board Journal of Education 1967, 3(2), 10-13. 3 ref.

A sample of 246 teachers (180 men and 66 women) of high schools in Jullundur was asked to list only three causes of their worries. About 700 factors mentioned by them were classified into 10 broad categories and arranged in order of frequency of listing. Women worry more than men and married women living alone worry most. Married teachers living with their partners worry less than others, while teachers married and living alone worry more than single teachers. In general, the worries arise more from personal life than from professional life. It is pleaded that steps should be taken to ameliorate the lot of teachers to ensure improved teaching.

- 858 VIJ D R: Traits of a successful teacher. Indian Education 1967, 6(4), 14-20.

An opinionnaire consisting of 15 traits of a successful teacher was administered to two groups of 30 students each from Government Degree College (with psychology as one of the subjects) and Government Post-Graduate Basic Training College, Dharmasala for eliciting their opinion regarding the relative importance of each trait. Traits getting equal importance from both the groups are: teaching (rank 1), cooperation (rank 6), impartiality (rank 10), and solviety (rank 15). The coefficient of correlations between the ranks given by the degree college students and by prospective teachers, calculated by the rank difference method, was found to be 73 which is significant both at 0.5 and 0.1 level. It may be concluded that fundamental qualities and abilities of an effective teacher do not vary much with the type of students.

UNIVERSITY GRANTS COMMISSION

- 859 INDIA. UNIVERSITY GRANTS COMMISSION: Report for the year 1965-66. New Delhi, the Commission, December 1966. 89p.

Some important facts and figures relating to the period under report are: 1) no. of universities and institutions of similar status - 73, 2) no. of colleges-2,572; 3) enrolment - 17,28,773, 4) postgraduate enrolment - 91,830, 5) research enrolment - 8,633. Enrolment at the post-graduate level rose substantially in engineering and technology, medicine, agriculture and veterinary science. At the research level the increase was in agriculture, engin-

engineering and technology. The Commission continued its efforts to raise the standards of education by adopting the following measures: 1) further improvement of the Centres of Advanced Study, 2) summer institutes, seminars and conferences, 3) appointment of review committees devoted to specific disciplines, 4) examination reform. The programme of area studies which envisages an intensive study of the historical, social and economic background of different regions and countries, is being implemented. Rajasthan University took up South-Asian studies and Osmania University took up Indo-Arab relationships. No new university would be started without the concurrence of the Commission. Establishment of postgraduate centres would be preparatory step leading to the establishment of new universities.

VOCATIONAL EDUCATION

- 860 ABBAS AMMAR: Workers' education in perspective. Indian Journal of Adult Education 1967, 28(1), 10-12.

For historical reasons trade unions in developing countries have not yet been able to assume their full role. Adequate attention should therefore be paid to the contents of the educational programme as well as to the philosophy defining the guiding principles. One of the basic objectives of a workers' education programme, therefore, should be to prepare trade unionists capable of managing their own affairs. The gap between the so-called elite and the rank and file should be bridged through education. As the workers play an important role in the economic development of a country, workers' education must pay due attention to the social and economic problems.

- 861 DIKSHIT R D: Education for rural reconstruction. Indian Education 1967, 6(3), 4-10.

In order to sustain rural development it is necessary to promote agriculture-based small scale industries to provide employment opportunities to the rural population. Some changes in the primary and secondary stage curricula are, therefore, called for to stop migration of educated rural population to cities. The secondary education suited to rural environments should be terminal in nature to enable students to take up some productive occupations in villages. Agricultural education should be correlated to some extent to farm practices in vogue in villages. Basic education should be reoriented to modern developments and centre around crafts having practical value.

- 862 KELKAR M G: Some thoughts on vocational agriculture

education programme in secondary schools in India. Indian Education 1967, 6(3), 11-21. 5 ref.

In planning the programme the factors to be considered are: 1) selection of suitable students likely to be benefitted by the programme; 2) employment potential in farming and allied fields; 3) courses of study; 4) minimum enrolment; 5) minimum facilities for initiating the programme. Students who are not likely to follow an occupation requiring training in farming should not be selected for such courses. Students from the farmers community should be preferred. Besides gainful employments in private and public sector, proper organization of farming by students belonging to farmers family would ensure adequate financial return. Two courses should be organized - one for those desirous of higher agricultural education and the other for students intending to return to farm or interested in employment. Besides, there should be part-time courses for adult farmers. The optimum enrolment should be 150 to 200 students including those in crafts in lower classes. An instructional farm of about 10 acres with good irrigation facilities and a good library are minimum requirements.

List of Periodicals Abstracted

AICC Economic Review: V 18, Nos 13-14
Bhavan's Journal: V 13, No 16
Capital (Supplement): 29 Dec 1966
Christian Education: V 16, No 4
Commerce: V 113, No 2903
Conspectus: V 3, No 1
Economic and Political Weekly: V 1, No 7
Education: V 46, No 2
Education and Psychology Review: V 7, No 1
Educational Forum: V 11, No 4; V 12, No 1
Educational India: V 33, Nos 5, 7
Educational Review: V 72, No 11; V 73, Nos 1, 2
General Education Quarterly V 3, No 3
Home and School V 7, No 4
ICBE Bulletin V 3, No 1
Indian Council of Basic Education Bulletin: V 2, No 5; V 3 No 1
Indian Education: V 5, No 10; V 6, Nos 1-2, 3
Indian Educational Review: V 2, No 1
Indian Journal of Adult Education: V 28, Nos 1, 2
Indian Journal of Medical Education: V 5, No 5; V 6, No 1
Journal of Education and Psychology: V 24, No 4
Journal of Educational Research and Extension V 3, Nos 2, 3
Journal of the Indian Academy of Applied Psychology V 4, No 1
Journal of J.J. Group of Hospitals and Grant Medical College
V 12, No 1
Journal of the Mysore State Education Federation V 20, No 6
Journal of Nutrition and Dietetics: V 4, No 1
Journal of Psychological Researches: V 11, No 1
Journal and Proceedings of the Institution of Chemists (India)
V 38, No 4
Journal of Vocational and Educational Guidance: V 13, No 1
Maharashtra Educational Journal V 15, Nos 4, 5
Muslim University Gazettee: V 16, No 9
NIE Journal: V 1, Nos 2, 3
Nagarjun: V 10, No 5
Naya Shikshak: V 9, No 1
New Concepts: V 1, Nos 1, 2
Progress of Education V 41, Nos 5, 6, 7
Psychological Studies: V 12, No 1
Punjab Journal of Education V 3, Nos 3, 4
Quest: 1966, Nos 51, 52
Rajasthan Board Journal of Education: V 3, No 2
Science Resource Letter: 1967, No 1
Seminar: 1966: No 88
Siksak (Bengali): V 20, No 8
Social Studies Teacher: V 3, Nos 3, 4
Swarajya: 1967, Annual Number
Teacher Education: V 1, No 2
Teachers' Journal: V 46, No 2
Towards Effective Teaching: 1966, No 5
University News: V 4, No 12, V 5, No 2

Newspapers: Amrita Bazar Patrika: 26 Jan 67. Hindu 4, 8, 13,
17 Oct 66; 2, 26, 31 Jan 67; 16 Feb 67. Hindustan Times: 19 Feb 67
Hitavada: 26 Jan 67. Patriot: 12 Mar 67. Times of India: 12, 15,
20 Oct 66. Tribune: 12 Oct 66; 30 Jan 67; 4 Feb 67.

